SOAP and SANITARY CHEMICALS

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315 FOURTH AVENUE • NEW YORK

June 1943

and

"D & O" . . . Two letters that have represented the finest in Aromatic Chemicals, Essential Oils and Perfume Compounds for more than five generations. Over 144 years of consistent success prove it pays to Call "D & O"!

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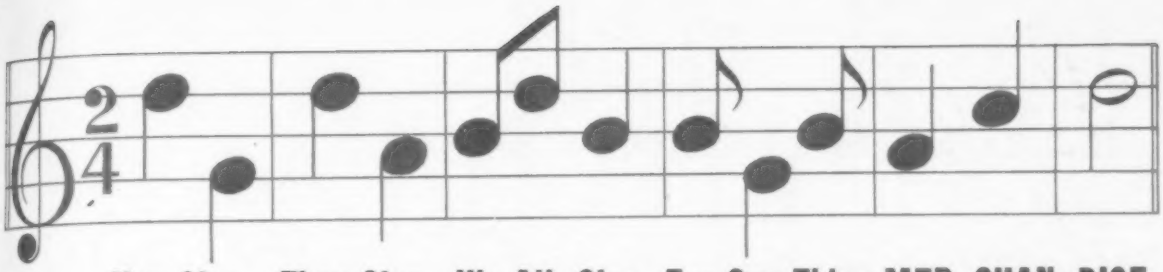

You Sing, They Sing, We All Sing For One Thing MER-CHAN-DISE

And we'll GET merchandise . . . maybe not as much as we want, but enough to see us through, if we'll just take advantage of the rules and regulations laid down by the War Production Board.

Certifications, PDIX forms, and End User percentages may be a bit of a nuisance to figure out, but they're what keep the stock rolling in the long run.

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As you already know, our Victory Service Bulletins 4 and 4A present CMP Regulations 5 and 5A in capsule form . . . easy to swallow and thoroughly effective. If you need additional copies . . . Write us . . . They're yours for the asking!

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FULD SELLS JOBBERS ONLY! • FULD MAKES IT FOR THE LEADERS

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Volume XIX Number 6

SOAP and SANITARY CHEMICALS

Reg. U. S. Pat. Office

JUNE
1943

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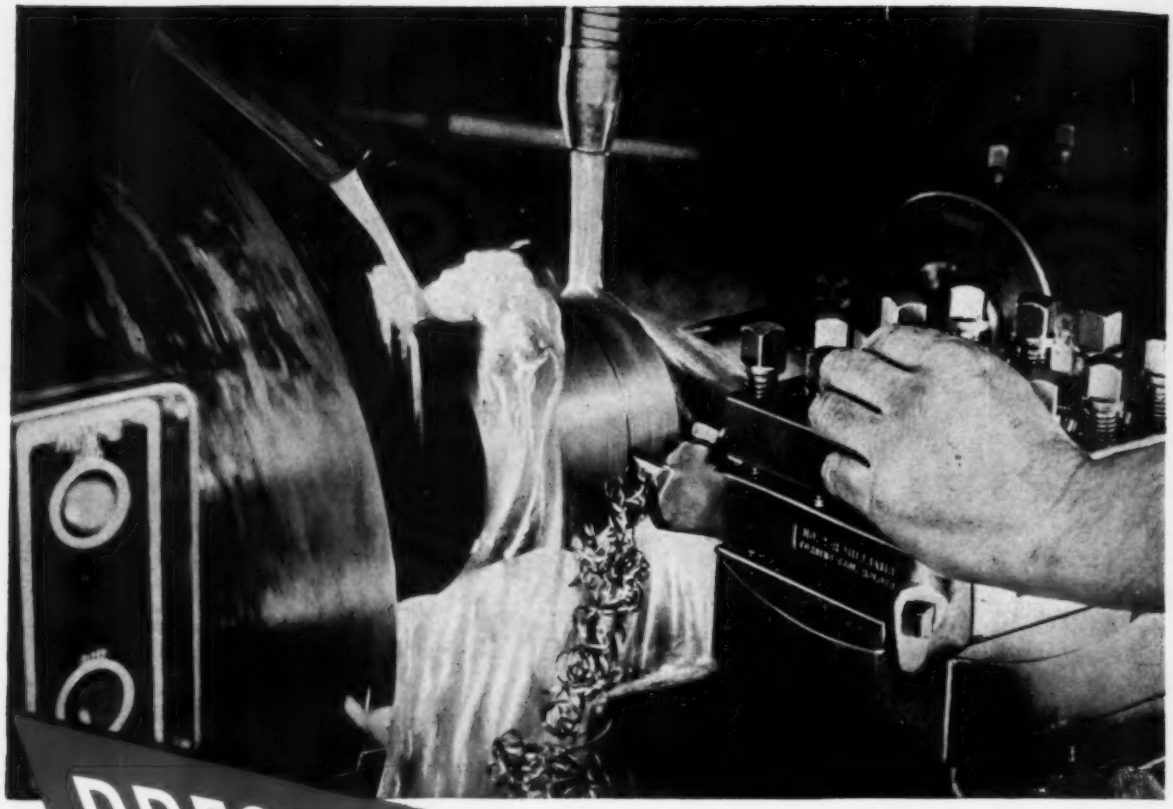

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These new Dresinates are, in fact, useful and economical for a long list of products . . . including soaps, disinfectants, alkaline metal cleaners, emulsion paints for floor coverings, pigments, inks, pyrotechnics. To obtain technical data, and samples suited to your particular requirements, fill out the coupon below and mail today.

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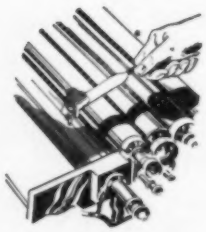

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CHEMICALS FOR INDUSTRY

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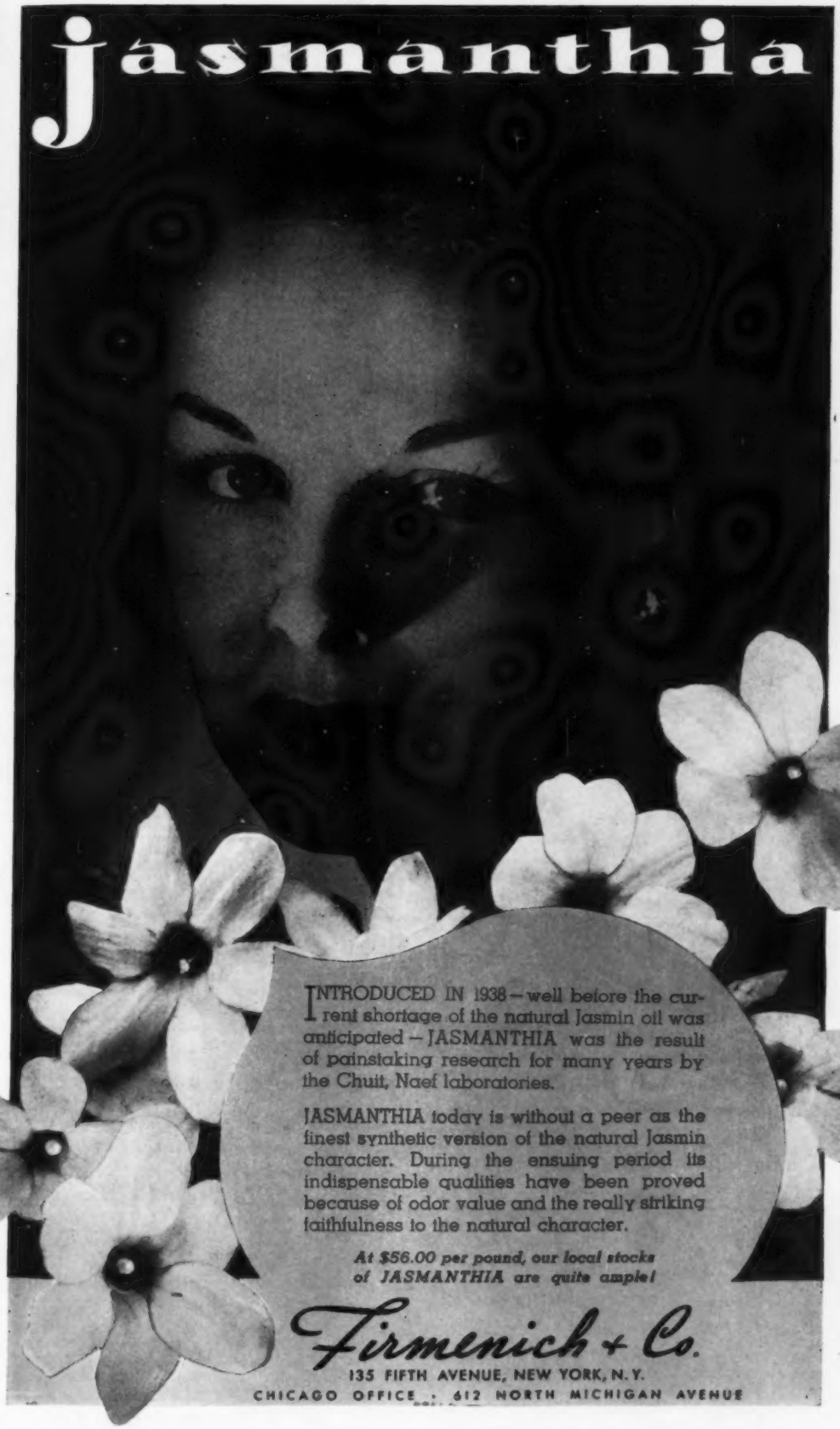

INTRODUCED IN 1938—well before the current shortage of the natural Jasmin oil was anticipated—JASMANTHIA was the result of painstaking research for many years by the Chuit, Naef laboratories.

JASMANTHIA today is without a peer as the finest synthetic version of the natural Jasmin character. During the ensuing period its indispensable qualities have been proved because of odor value and the really striking faithfulness to the natural character.

At $56.00 per pound, our local stocks of JASMANTHIA are quite ample!

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The devil incarnate . . . and his playmates of the day . . . endeavoring to make a lasting shambles of the world and its belongings. Well have they chosen each other as playmates. Yet each, in his own way, must distrust the other . . . And each in his own mind must fear the hour when a bullet will bid him join his counterpart, Satan, in everlasting perdition.

Let us make room for that bullet.

It may be *the* important bullet for which you make room. It may find the vital space to its destination in a little corner of a freight car, motor carrier, or steamer . . . in space made available through *your* utilization of concentrates rather than bulky packaged oils, flavors, or fruits . . . no matter how essential, no matter how short a haul or apparently insignificant the container.

★ ★ ★

For years, manufacturers have found that Florasynth concentrated citrus oils, synthetics, and flavoring materials not only take minimum space but yield maximum results. Because of their proven utility, they have always been recognized as *primary essentials* . . . even before our entry into the war. Today's requirements have simply made them *doubly valuable.*

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HY-O-LAN

will still be your

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IT'S GOT LANOLIN

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When the liquid soap shortage ends, HY-O-LAN will still be your best seller. *It's a better soap.* It gets the deep pore dirt that liquid soaps miss. It removes grime and grease *faster.* It contains LANOLIN—to soothe workers' hands like costly skin balms.

HY-O-LAN is the new type *powdered hand soap* . . . with the *new emulsifiers* that melt the grime and dirt away —instead of grinding them in with harsh abrasives that clog drains. It's the soap of the future, *available now.* SEND FOR SAMPLE AND PRICES.

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NOT A SCRATCH IN A BARRELFUL

THE SAFETY SOAP. No more soap raw hands when HY-O-LAN replaces old style hand soaps. Less absenteeism. That's what your trade is looking for.

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SELLING EXCLUSIVELY TO JOBBERS AND DISTRIBUTORS

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... That is a point on which some customers might hesitate to avail themselves of Solvay Technical Service. Please be assured that any information that you may impart to a Solvay Technical Service man remains in strictest confidence. It is used only insofar as it is necessary to help solve your particular problem. When consultations are concluded, your problem is a closed book with Solvay Technical Service.

You will find on the staff of Solvay Technical and Engineering Service men of the highest type who have been especially trained to cope with your problems as they pertain to alkalies and related products. They are at your service. Please feel free to call on them without hesitation.

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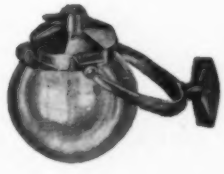
Liquid *Powder*

Gone for the Duration But— Not Forgotten!

GONE, because—all our precision equipment is occupied day and night producing hydraulic valves for Bombers.

NOT FORGOTTEN, because—we have a group of new dispensers now in the blueprint stage—revolutionary in design and performance—available we hope, soon after **VICTORY DAY.**

As always—Bobrick, the oldest and largest manufacturer of quality soap dispensing equipment will lead the field!



Bobrick Manufacturing Corporation
Los Angeles California
"Our 37th Year"

THE SENSITIVE EYE OF THE X-RAY CAMERA REVEALS THE TULIP'S MULTIPLE HIDDEN BEAUTIES ...*EXTRA VALUES* IN LINE, FORM, AND TEXTURE THAT OTHERWISE WOULD REMAIN INVISIBLE.

"HIDDEN VALUES" SUGGEST BUY WISELY...BUY GIVAUDAN

The "hidden values" in Givaudan products are the essence of experience . . . distillate of knowledge and painstaking development.

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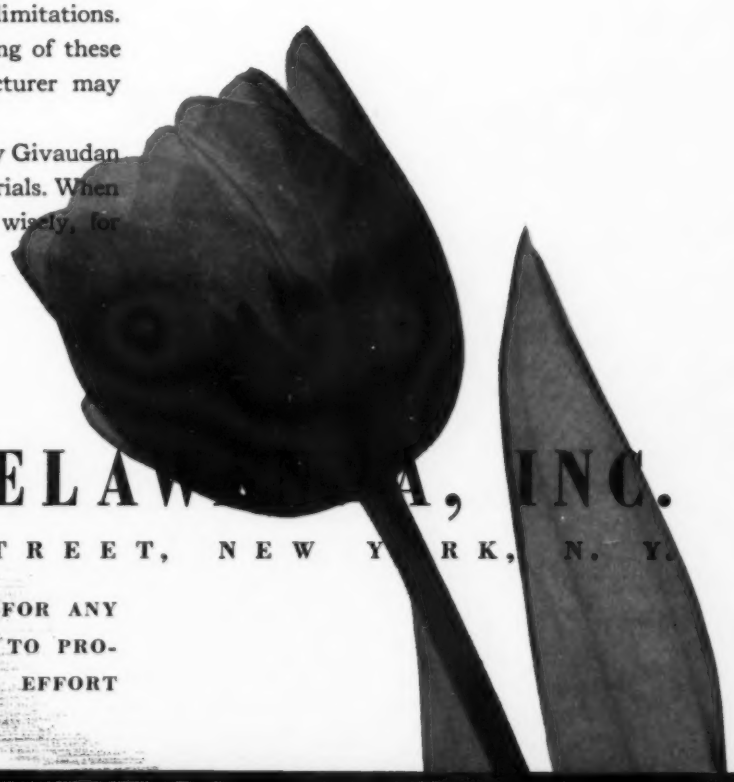
That is why it pays, now more than ever, to buy Givaudan selected quality specialties and perfume raw materials. When you buy Givaudan, you know you are buying wisely, for you buy the best.



GIVAUDAN-DELAWANNA, INC.

330 WEST 42ND STREET, NEW YORK, N. Y.

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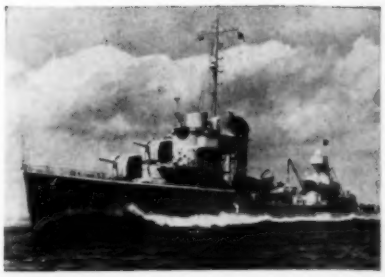
WAR PRODUCTION *Comes First!*

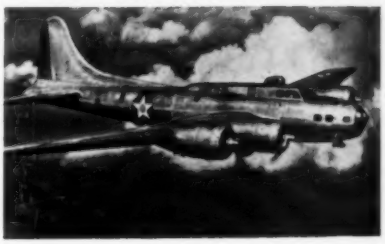
The Silicate demands of our war industries of course deserve and receive first consideration today.

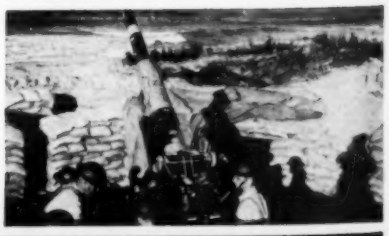
YOU can help the manufacturer and yourself by anticipating your Silicate requirements as far in advance as possible.

Won't you Cooperate?

ALKALI







DIAMOND ALKALI COMPANY • Standard Silicate Division

Plants at CINCINNATI · JERSEY CITY · LOCKPORT, N. Y.
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JAVONELLA

Perfect for Perfuming

LAUNDRY SOAPS – WASHING POWDERS – LIQUID CLEANSERS – POLISHES, etc.

Even when Oil of Citronella was low in price and easy to obtain, JAVONELLA was a reliable favorite. A great many manufacturers preferred its finer, cleaner odor, its uniform quality and consistent economy. And now that Citronella is so high in price and difficult to get, JAVONELLA is more important to you than ever before.

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Manufacturers of AROMATIC CHEMICALS, ESSENTIAL OILS, PERFUMES AND FLAVORS

BRANCHES IN PRINCIPAL CITIES

** Write for Samples & Quotations!*

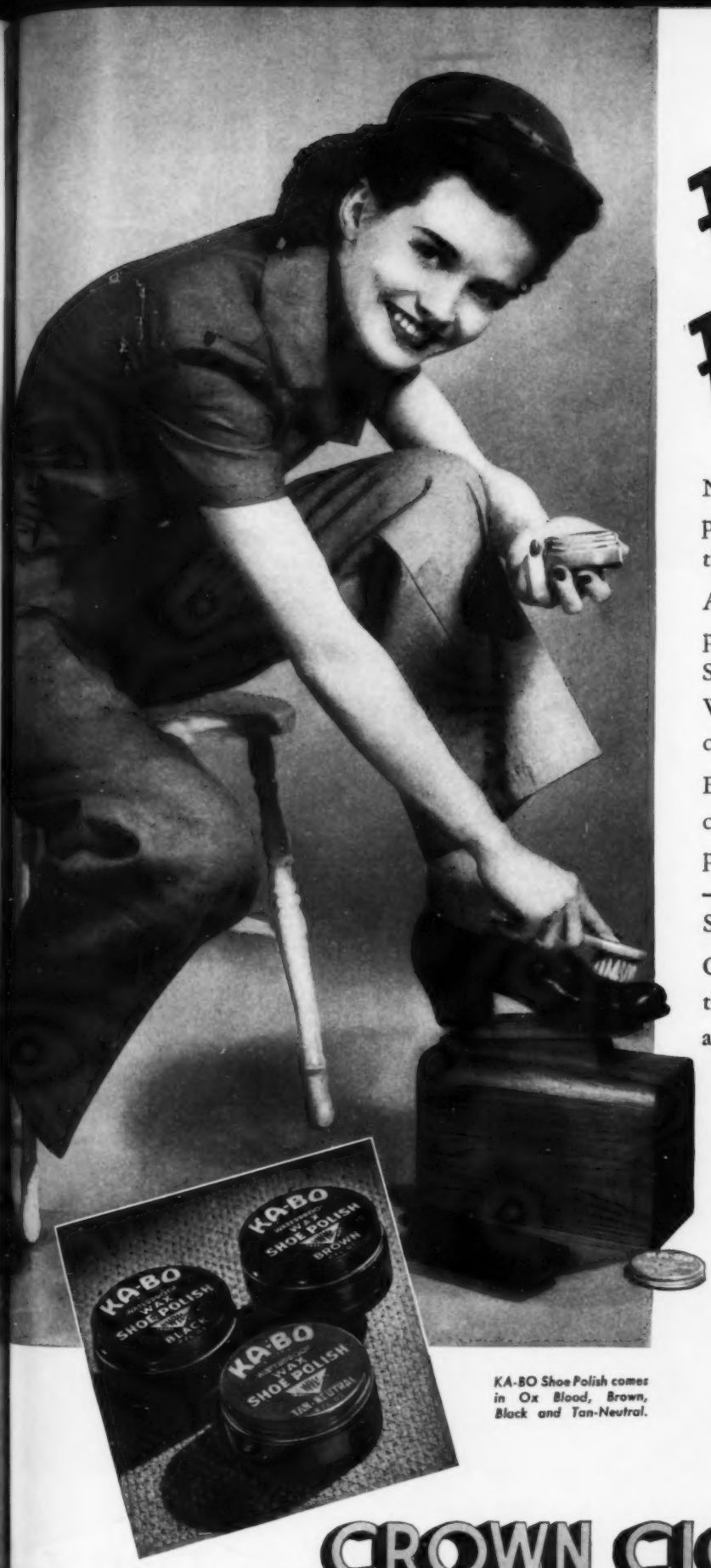
Countless Miles of Floors

ARE MAINTAINED BY "BEAMAX"

YEARS OF USER-SATISFACTION ARE BEHIND THIS PRODUCT

"BEAMAX" is well known to thousands of users as a lustrous-drying Liquid Wax that always delivers full value. Economical—because a thin coat dries in a few minutes to a hard, lustrous beautiful finish, without polishing. It smooths itself. All types of floors—including rubber, wood, linoleum, rubber tile, asphalt tile, mastic, terrazzo and cement — are easily kept clean by sweeping or using a dry mop. "BEAMAX" will not solidify in storage. It has no unpleasant odor. Samples and prices of "BEAMAX" will be sent to you on request.

THE DAVIES-YOUNG SOAP COMPANY
DAYTON, OHIO



KA-BO Shoe Polish comes in Ox Blood, Brown, Black and Tan-Neutral.

Facial for Footwear!

Now that shoes are rationed, people are taking better care of the ones they have.

A favorite product for this purpose is KA-BO Waterproof Wax Shoe Polish, manufactured by Wilkey Laboratories, Inc., Chicago, Illinois.

Because of the shortage of more critical materials, KA-BO is now packed in sturdy glass containers —attractively sealed with Crown Screw Caps.

Other manufacturers, faced with the necessity of changing packaging materials for the duration, will be glad to learn that Crown Closures—in a wide variety of types and sizes—are now obtainable for wartime use.

CROWN CORK & SEAL COMPANY
World's Largest Makers of Closures for Glass Containers
BALTIMORE, MD.

CROWN CLOSURES

CROWN'S WARTIME POLICY: *To supply closures, containers and services for packaging foods, beverages, chemicals, etc., needed by civilians and the armed forces. To build an ever-increasing volume of vitally needed weapons of war for our fighting men.*

AROMATICS

SYNTHETIC

Products of Specialized Experience in Chemical Synthesis

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

DOW

CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

B-M SPECIAL CLEANER

A Super Concentrated Cleaning Agent

Economical!!

Not only does B-M SPECIAL CLEANER save time and effort—it also saves money. Because it is concentrated, 1 part of B-M SPECIAL CLEANER will do the work of 4 parts of ordinary scrub soap or liquid cleaner.

Spicy Odor!!

Not only is B-M SPECIAL CLEANER pleasant to use because of its remarkable effortless cleaning power but it also has a new and different odor—leaves premises with a really clean and refreshing air. A spicy, light fragrance never before achieved with commercial floor cleaning compounds.

Cleans!!

Marble Floors • Tile Floors • Rubber Floors • Terrazzo Floors • Asphalt Tile Floors • Linoleum Floors • Venetian Blinds • Painted Walls • Woodwork • Glass • Removes Wax Film • Removes Rubber Burns • Degreases

If it's best by every test you know it's made by

BAIRD & McGUIRE, INC.

1200 SWITZER AVENUE • SAINT LOUIS, MISSOURI

Norda

Scarcity of floral oils . . .

Present dwindling supplies of natural floral essences emphasize the value of high quality substitutes.

Synthetic floral essences can be used to replace the natural oils with full satisfaction and marked success in numerous products, — toilet soaps, shampoos, shaving creams, powders, creams, and many others.

In fact, in many products the newer synthetic floral essences are to be *preferred* for the manner in which they reproduce the true fragrance of the living flowers in the finished product,—not to mention uniformity of quality and odor fidelity, and their economy under preset conditions.

Let us tell you more about these newer substitutes as an answer to the growing scarcity of natural floral oils.

NORDA Essential Oil and Chemical Co., Inc.

Chicago Office
325 W. Huron St.

Los Angeles Office
2800 E. 11th Street

St. Paul Office
253 E. 4th St.

Toronto Office
119 Adelaide St., W.

New York Office
601 West 26th St.

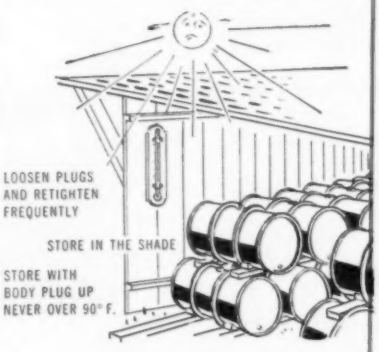
Montreal Office
135 Commissioners St., W.

This is a drum containing acid

This is a new hand in your plant

...and here are 6 ways to keep both working for victory!

As soon as drum is received, check for leaks as corrosion-resistant lining may crack during shipment . . . Protective clothing also prevents accidents.



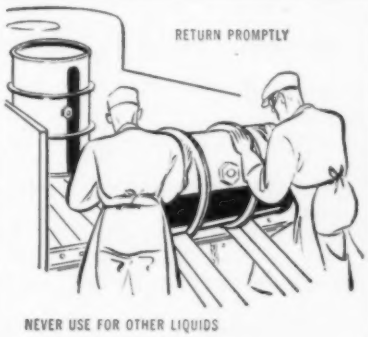
Remember—even water expands into steam under sufficient heat. Most chemicals require much less heat to build up dangerous internal pressures.

Hydrogen mixtures may build up inside a drum from the action of its contents on metal. A spark from a tool, a careless cigaret or match — and you have an explosion!

You never know until too late whether internal pressure will force a drum's contents out in a rush the minute you loosen the plug. *Always* play safe!

EMPTY BY GRAVITY—DRAIN COMPLETELY
NEVER WASH INSIDE
REPLACE PLUGS AND TIGHTEN
IF CONTENTS SPILL, WIPE OFF, THEN FLUSH WITH WATER

In emptying, never use pressure. After emptying, drain completely and replace plugs securely to prevent corrosion on the return trip. Never wash the inside of a drum!



Steel containers are literally worth their weight these days in ammunition. From the time they reach your plant, handle them carefully. Return them promptly.

To old hands at handling chemicals these precautions will be primer stuff — but old hands are becoming scarce in many a plant which uses substantial quantities of potentially dangerous chemicals. These suggestions are offered, therefore, as a help in impressing new employes with the importance of protecting their own safety and also conserving vital shipping containers. The suggestions are based on one of a series of bulletins issued by the Manufacturing Chemists' Association.

For more detailed help on specific chemicals conservation problems in your plant or training new employes to handle chemicals safely, write: MONSANTO CHEMICAL COMPANY, St. Louis, Missouri.

MONSANTO CHEMICALS

SERVING INDUSTRY...WHICH SERVES MANKIND

"E" FOR EXCELLENCE—The Army-Navy "E" burgee with two stars, "representing recognition by the Army and the Navy of especially meritorious production of war materials" over a two-year period flies over Monsanto.

JONES TOGGLE PRESSES

We are proud to announce . . .

. . . that R. A. Jones & Company and its employees have received the Army-Navy Production Award. It is not such a far cry after all from the manufacture of soap presses and carton loading machinery to the production of highly specialized machines for the manufacture of ammunition for our armed forces.

Among other equipment which we are making for Ordnance use, we have designed and built machines to load detonators automatically. We adapted the famous toggle motion of the JONES PRESS to the intricate pressing operations required. In contrast to hand loading, these machines load detonators better, faster, with complete safety to operators, and with one-fourth the labor formerly used. The toggle motion, with its long, slow squeeze has made possible meeting the stringent Ordnance requirements of safety, high production, and adherence to close tolerances.

Long recognized for its excellence in producing perfectly pressed soaps, the toggle motion adapted to war use now, has helped win the Army-Navy "E" Award for production excellence.

The Standardized CONSTANT MOTION CARTONER packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads.

R. A. JONES & COMPANY, INC.

P. O. BOX 485 CINCINNATI, OHIO

EDITOR

TO buyers of soaps, private brand, bulk and others, let it be said that soap manufacturers are not cutting down on sales and shipments because they want to do so. Admittedly, some soapers are concentrating most of their available raw materials in their own branded lines. But after all is said and done, what other course would common sense dictate under present conditions? In spite of accusations of unfairness, private brand and bulk soap buyers, if they will look the facts squarely in the face, will admit that where self preservation is threatened, every manufacturer must look out for his own interests first. If buyers will examine their own motives for protesting, they will also admit that their motives are identical with those of the manufacturer for reducing or refusing orders.

The raw material situation has forced the hand of soap manufacturers and made it necessary that they sell on a pro-rata basis, even to old customers. And where is there a manufacturer or jobber who will not give first preference to old customers? Or who, if they must cut off any accounts, will not make this apply to the latest additions to their customers' list? Some manufacturers have cut old accounts down to sixty or seventy per cent. Others have cut even below fifty per cent of 1942 purchases. A few have cut their old accounts more and are giving recent accounts only twenty or thirty per cent. But in every case, there have been cuts in the quantity of soap supplied,—and in every case this has been beyond the control of the soaper. As far as we can determine, there is not a soap manufacturer who is not doing everything possible to supply his regular trade, the extent of this supplying depending upon not only his quota, but the ability actually to buy enough oils and fats to operate at the maximum quota figure. Private brand and bulk soap buyers should bear this in mind and not assume the attitude that if their orders are cut, they are being hoodwinked by their suppliers. At best, the situation is bad,—and although we do not like to be unduly pessimistic, it may become worse before it gets better.

AS IS the usual custom, the soap industry has again received early and prominent attention from the O.P.A. With the recent establishment of dollars-and-cents prices for soap products,—"case by case, cake by cake, box by box, and brand name by brand name,"—on sales all the way from the manufacturer down through the retail grocer, O.P.A. has really put soap prices "on ice." At present, only grocery stores, because the bulk of soap is sold through them, come under the new regulation. Others will continue to price their soaps as of March 1942, as in the past.

Says O.P.A. in announcing the new prices, "Today's price control action affects not only a commodity vital to every household in America, and its by-product of war-vital glycerine, but also a commodity which is in the 'big business' field." We fail to see just how fixing soap prices will augment glycerine supplies,—or just what the "big business" angle has to do with it. We also beg to point out that although soap is "vital to every household in Amer-

ica," its purchase accounts for only a fraction of one per cent of the national income. In short, compared to so many other things, it is distinctly a minor factor in the cost of living,—a factor out of all proportion to the attention which it continues to receive in the great fight of O.P.A. to keep down living costs and prevent inflation.

By confining the application of the new prices to grocery stores of various classifications, while exempting drug, department, novelty, and other retail outlets, O.P.A. leaves a hole in its price dike which in effect may mean eventual disturbances in soap distribution channels. This is but one of numerous possible criticisms of the details of the regulation itself. The main question, however, still concerns the necessity for such perhaps immoderate regulation of an industry that has never been particularly notorious for overcharging the consumer.

If the prices of all necessities of life had been held within bounds over the past year as closely as have soap prices, the threat of inflation would not be as serious as it is today. In its early and recurrent preoccupation with soap price levels, perhaps O.P.A. may be overlooking bigger game, and wasting its shot. There are dozens of price situations, which occur to us, in other commodities much more important than soap in determining living costs, and to which it would seem the O.P.A. might profitably give more of its attention.

SUGGESTIONS that the most effective manner in which to stimulate the collection of waste fats and greases is to reward the collectors with extra ration stamps good for meat or fats, have been more numerous of late. On its face, the idea appears to have much merit. Obviously, in the present state of wages and earnings, the five-cents per pound paid for salvaged fats is no inducement to householder or restaurant operator to save them and turn them in. The flat appeal to patriotism has, we are sorry to report, not been too successful thus far. A reward in the form of ration tickets should prove effective,—that is if a few miles of O.P.A. and W.P.B. red tape could be cut so as to put such a plan into operation.

And while on the subject of fat salvage, may we suggest that much of the drivel being handed out by the O.W.I. to the papers on this subject should be censored by somebody who knows what it is all about? Some of their figures are altogether cockeyed, as are their facts. They should know, if they do not, that the soap industry is not a *source* of waste fat, but the single largest user of this material, if and when available. Why not temper the ballyhoo with a little more accuracy,—and also try to get some quick action on this ration stamp reward idea?

PRODUCTION of so-and-so soap has been rationed! This is the opening gun of a sales letter sent out by a small direct-by-mail soap company. The letter goes on to say that retail soap purchases are not rationed,—*yet,* but that you had better get in that order right away because later your purchases of soap will most likely be rationed.

A letter of this type broadcast over the country is one way to give people that panicky feeling in regard to their soap supply and to start a new wave of soap hoarding. We feel that soap has been accumulated in a rather large way by householders, but further threats of rationing might well light a new fuse. Some day the soap industry is going to pay the fiddler for the stocks of soap already hoarded,—so why make it any worse?

As for actual government rationing of soap to consumers, this still remains unlikely. Such O.P.A. opinions as have been expressed on the subject to date, state flatly that there will be no soap rationing in spite of back-fence reports to the contrary.

INTERPRET GOVERNMENT ORDERS

Official interpretations by the Food Distribution Administration of its orders covering soaps, oils, fats, glycerine, etc.

ANSWERS to a group of typical questions that soap makers have been asking about enforcement of various government orders affecting soaps, oils and fats, glycerine, etc., have just been released by the Food Distribution Administration and are reproduced below for the guidance of soap and glycerine manufacturers and users. The transfer of control of the soap unit of WPB to jurisdiction of the Food Distribution Administration, several months back, resulted in an unforeseen delay in release of the answers. Subsequently revision of the whole set of government orders dealing with soaps, fats, oils and glycerine entailed further unpredictable delay. The questions were originally framed by A. P. Federline of the Association of American Soap and Glycerine Producers, based on typical inquiries received by the Association. The answers come from the office of C. W. Lenth, Acting Chief, Soap and Glycerine Division, Fats and Oils Branch, Food Distribution Administration, U. S. Department of Agriculture, Washington, D. C.

(References under titles are to paragraphs of order that are involved.)

Answers to Questions on FDO-42 Which Restricts Use of Fats and Oils

WHAT CONSTITUTES SOAP
(a) (8)

Q. Are the following products "soaps" so that fats and oils used in them are subject to quota restrictions?
(a) Lathering shaving cream?
(b) Brushless shaving cream?
(c) Shampoos containing soap?
(d) Shampoos not containing soap?

A. (a) Yes
(b) Yes
(c) Yes
(d) No

SOAP FOR NON-DETERGENT PURPOSES
(a) (8)

Q. What is meant by the term "soaps used for non-detergent purposes," in the exception from the definition of "soap"? Does it include soaps used in—
(a) Synthetic rubber manufacture?
(b) Wire drawing?
(c) Treatment of leather and camouflage canvas?
(d) Shell loading?
(e) For emulsifying insecticides and disinfectants?
(f) As a spreader for oil sprays and insecticides?

A. (a) Yes
(b) Yes
(c) Yes
(d) Yes
(e) Yes
(f) Yes

Q. Since some soaps when made could be used for either detergent or non-detergent purposes, what evidence should a manufacturer have on hand to prove non-detergent usage in the case of—
(a) direct sales by the manufacturer to the consumer?
(b) sales through a jobber or other intermediary?

A. In both of these cases, a certificate from the consumer stating the use is advisable.

WHO IS ENTITLED TO QUOTA
(b) (1)

Q. Who is entitled to the fats quota where a private brand owner had his soap made for him during the base period, and the soapmaker purchased the oils?

A. The soapmaker.

SUPPLIERS RIGHT TO RESTRICT SOAP SALES
(b) (1)

Q. If our soap supplier refuses to sell us more than 70% of our average quarterly purchases from him during the corresponding quarters of 1940-41, what can and should we do to get more?

A. You may approach another supplier to secure your additional requirements.

WHEN "USE OR CONSUMPTION" TAKES PLACE
(b) (1)

Q. A manufacturer splits tallow and grease making red oil and stearic acid. The stearic acid is sold but the red oil is used in making soap. When does this manufacturer's use of fats for soap take place; at the time the fat is split, or later at the time the soap is made by adding alkali to the fatty acids?

A. At the time the alkali is added to the fatty acids to make soap.

STATUS OF SALES TO CONVERTERS
(b) (1)

Q. Soap manufacturer "A" sells bulk soap to manufacturer "B". Manufacturer "B" mixes other materials such as soda ash, phosphates and abrasive materials, etc. with the soap and packages it in his own package. Does the fat and oil involved in making the soap come out of "A's" quota?

A. No, under Sec. a (3) of the order, "B" is the manufacturer since he is the one who makes the "finished product." Therefore, the fat and oil involved is ex quota as far as "A" is concerned but comes out of the quota of "B". The production of "B" is limited by the order to soap equivalent to 84% of the primary fats and oils or 100% of the foots or acids therefrom used in the corresponding average quarter of 1940-41.

Q. Assuming soap manufacturer "B" in the above question has used up his quota in a given quarter—can he,
(a) buy more soap from his supplier and add his usual ingredients to make his finished product and have the fats come out of his supplier's quota?
(b) have his supplier make a complete finished product for him which "B" simply packs in his own containers without addition of other materials or mixing or processing and have the additional soap come out of his supplier's quota?

A. (a) No, because his usual processing and mixing would make him a manufacturer and fats and oils involved would come out of his quota making him a violator of FDO-42.
(b) Yes, because in this case his supplier is the manufacturer.

Q. Soap manufacturer "A" sells liquid soap to manufacturer "B", who does nothing to it but add perfume and package the product. Does the fat or oil involved in making the soap come out of "A's" quota?

A. Yes, the mere addition of perfume has been ruled insufficient to com-

prise manufacturing. Therefore, the case is different from that under question No. 7.

Q. Soap producer "A" sold soap to manufacturer "B" in 1940-41. "B" mixed this soap with other material to make his finished product which he sold under his own brand. As covered under question 7, "B" has a fat quota based on the fat content of the soap he purchased in 1940-41.

(a) Is "B" required to continue to purchase his raw soap from "A"?

(b) Is he limited to the same product or products he made in 1940-41?

A. (a) No.
(b) No, not by FDO-42 (but OPA Commodity Practices Regulation No. 1 must be complied with.)

Q. Soap producer "A" sold paste potash soap to "B" in 1940-41. "B" dissolved the paste soap in water, added perfume, and marketed the liquid soap. Who has the quota?

A. "A" was the actual manufacturer, therefore, the quota belongs to him. It has been ruled that the addition of water and perfume only does not constitute manufacture.

CARRY OVER OF UNUSED FATS QUOTAS
(b) (2)

Q. Where a manufacturer does not use part of his quota of fats and oils in a given quarter and it is carried over into a subsequent quarter and if the subsequent quarter has a different percentage of base period allowance due to a change in the order, how is the carry over figured?

A. The carry over being in pounds of fat is simply added to the allowed quota for the following quarter (No carry over is permitted by the order between the 2nd and 3rd quarters of any year).

MEANING OF "RAW FOOTS"
(b) (3)

Q. What is the significance of the use of the word "raw" in limiting the "foots" that are to be calculated on the basis of total fatty acid content?

A. Not acidulated or distilled.

Q. Do "raw" foots include tank bottoms, tank settlings, and refining foots?

A. "Raw" foots include refining foots but not tank bottoms, or tank settlings.

CHARGING FOOTS AND FATTY ACID USE AGAINST QUOTAS
(b) (3); (b) (9)

Q. Just how does one calculate permissible use of foots on the basis of total fatty acid content?

A. The use of foots should be based on the fatty acid weight and not on the physical weight. For example, 1000 lbs. of foots containing 45% total fatty acid content would be counted as 450 lbs. foots fatty acids.

Q. Since the order does not define the terms "foots" and "fatty acids," will you explain which quota percentage, 84% or 100%, applies when the following are used in making soap:

(a) Foots from the refining of domestic vegetable oils other than olive?

(b) Fatty acids derived from foots from the refining of domestic vegetable oils other than olive?

(c) Fatty acids, domestic vegetable oils (except olive), other than from foots?

(d(Acidulated soap stock of domestic vegetable origin other than olive?

(e) Olive oil foots of domestic origin (derived by solvent extraction, refining of vegetable oils, or as tank settlings)?

(f) Animal foots?

(g) Foots from the refining of all imported vegetable oils (inc. olive)?

(h) Fatty acids derived from foots from the refining of all imported vegetable oils?

(i) Fatty acids, imported vegetable, other than from foots?

(j) Acidulated soap stock of imported vegetable origin?

A. (a) 100
(b) 100
(c) 84
(d) 100
(e) 84
(f) 84
(g) 84
(h) 84
(i) 84
(j) 84

Q. Insofar as quota restrictions are concerned, are tank bottoms and tank settlings to be treated as foots?

A. No.

SUBSTITUTION OF FOOTS AND THEIR FATTY ACIDS FOR BASE PERIOD USE OF FATS
(b) (4) and (b) (9)

Q. (a) Is it intended that a manufacturer can use 100 lbs. of foots from domestic vegetable oils or fatty acids made therefrom instead of 100 lbs. of his base period use of primary fats and oils even if he has no previous usage of such foots or fatty acids?

(b) If a manufacturer has a record of average quarterly use in 1940-1941 of 2,000,000 pounds of primary fats and oils and 500,000 pounds foots from domestic vegetable oils or acids made therefrom, is it correct to interpret that if he desires he can use 2,500,000 lbs. of such foots or fatty acids per quarter providing he uses no other fats and oils except such foots or fatty acids?

A. (a) Yes.
(b) Yes.

SOAP SALES EXEMPT FROM FATS QUOTAS
(b) (5) (ii)

Q. To take advantage of the exemptions listed under (b) (5) (ii) is it necessary that the manufacturer be the direct seller; or may he sell through a wholesaler or a jobber and under what conditions?

A. He may sell through a wholesaler or through a jobber. He must, however, in such cases obtain a certificate as specified under (b) (5) (ii) (j).

Q. Under what conditions are fats used in soap sold to Army Post Exchanges not chargeable to manufacturer's quota?

A. Only when for use outside of the Continental U. S.

EXEMPTION OF EXPORT SALES THROUGH JOBBERS
(b) (5) (iv)

Q. Are sales of soap for export of the type which are quota exempt under paragraph (b) (5) (iv) still quota exempt if sale is made through a jobber?

A. Yes—but the manufacturer should obtain a statement from the jobber that the sale was in a class covered by paragraph (b) (5) (iv).

DETERMINATION OF BASE PERIOD USE OF FATS
(b) (6) and (b) (5) (ii)

Q. In determining base period use of fats in soapmaking, must the manufacturer exclude soaps sold in 1940 and 1941?

(a) for non-detergent purposes?
(b) for textile processing?
(c) to the Army and Navy?
(d) to War Shipping Administration?
(e) to Panama Railroad?
(f) to Food Distribution Administration for export?
(g) to Lend-Lease?
(h) to Post Exchanges?

A. (a) Yes
(b) Yes
(c) Yes
(d) Yes
(e) Yes
(f) Yes
(g) Yes
(h) Yes, if for outside continental U. S. Otherwise, not; because domestic Post Exchanges are not exempt under any condition.

LINSEED OIL
(c)

Q. Is there a limit on the quantity of linseed oil a soapmaker can buy?

A. There is no limit under FDO-42 on the purchase of linseed oil, however, Priorities Regulation No. 1 restricts inventories of raw materials.

Q. Is use of linseed oil in soapmaking restricted, provided overall use of all fats and oils does not exceed 84% on prime fats and oils and 100% on foots and their fatty acids?

A. No.

WHAT IS A "PRACTICABLE MINIMUM WORKING INVENTORY"?

(d) (3)

Q. The order states that the term "practicable minimum working inventory" which limits the extent to which fats and oils may be processed into finished products, shall be construed strictly, but does not define the term. Will you give us an idea of what tests your office applies?

A. It is impossible to answer this question definitely as it depends on the conditions of manufacture and distribution. What may be an excessive inventory for one manufacturer may be a practicable minimum for another.

OILS AND FATTY ACIDS SUBJECT TO THE EDIBLE OIL PROHIBITION

(e) (1) and (e) (2)

Q. Does the order prohibit the use of the following in soapmaking—
(a) crude or refined oils listed under (e) 1 and 2?
(b) fatty acids—split from either crude or refined fats and oils listed under (e) 1 and 2?
(1) before January 1, 1943?
(2) after January 1, 1943?

A. (a) Yes
(b) (1) no
(2) yes

USES EXEMPT FROM EDIBLE OIL PROHIBITION

(e) (1) and (e) (2)

Q. Do the restrictions on the use of fats and oils listed in (e) (1) and (2) apply to those who make—
(a) Fatty acids?
(b) Sulphonated oils?
(c) Sulfated fatty alcohols?
(d) Soap intended for sale to another manufacturer for inclusion in any soap product?

A. (a) No
(b) No
(c) No
(d) Yes

USES EXEMPT FROM EDIBLE OIL PROHIBITION

(e) (3)

Q. Does the order prohibit the use of oils listed in (e) 1 and 2 in the manufacture of—
(a) soap sold to the Army and for other exempt uses?
(b) soap sold for non-detergent purposes?
(c) soap sold for textile processing?
(d) sulphonated oils?
(e) fatty acids?
(f) sulfated fatty alcohols?

A. (a) Yes, except for U.S.P. XII soaps for medicinal use and soft soap, hospital grade, U. S. Army Spec. No. A-1027-A, Feb. 5, 1941 for delivery to United States Army.
(b) No
(c) No
(d) No
(e) No
(f) No

QUANTITIES EXEMPT FROM THE EDIBLE OIL PROHIBITION

(e) (3) (i)

Q. Does the exemption of oils in (e) 1 and 2 for soapmaking apply—
(a) to each fat or oil of which the soapmaker had less than 60,000 pounds on December 31, 1942, irrespective of his total inventory of all edible fats and oils?
(b) to a fat or oil in a case where the soapmaker on December 31 had more than 60,000 pounds, but before 1/7/43 reduced his inventory to less than 60,000 pounds?

A. (a) The exemption applies to each type of oil.
(b) No

EXEMPTION OF U.S.P. SOAPS FROM EDIBLE OIL PROHIBITION

(e) (3) (ii)

Q. Are all soaps listed in the Twelfth Edition of the U. S. Pharmacopeia exempt from the prohibition against use of (e) 1 and 2 oils, or does the exemption apply only to U.S.P. Green Soap?

A. All soaps listed in U.S.P. XII are exempt for medicinal uses.

RESIDUE AND TANK BOTTOM EXEMPTION FROM EDIBLE OIL PROHIBITION

(e) (3) (iii)

Q. Will you outline in a general way the scope of the exemption of (e) 1 and 2 oils for soapmaking that are—
(a) tank bottoms?
(b) by-products or residues of the permitted processing of any fat or oil?

A. (a) Dirty settlings not fit for edible purposes.
(b) By-products from manufacture of Norepol. Fat residues from deep fat frying, reclaimed oils from spoiled edible products, etc.

Q. To meet the requirements of these exemptions is it sufficient if the soapmaker obtains from his supplier a memorandum or invoice stating the fat or oil delivered to him is tank bottoms, or tank settlings, or raw foots, or a by-product or residue of a permitted processing?

A. No, he must believe from his own inspection of the products that they are as billed.

RELEASE FOR SOAPMAKING OF OILS UNFIT FOR EDIBLE USE

(e) (3) (v)

Q. In appealing for release for soapmaking of (e) 1 and 2 oil where the inventory on December 31 was 60,000 pounds or more and the oil is unfit for edible use, is it necessary to state other than intended use, quantity on hand, how packed, and send a sample and a chemical analysis?

A. Send the FDA an official sample and official analysis and offer the material along with a portion of the official sample and a copy of the official analysis to five (5) buyers of edible oils and advise the FDA of the results of this attempt to sell.

Q. What test will be applied in determining whether or not a restricted edible oil is unfit for edible use?

A. See question No. 33.

REPORTING

(g) (1)

Q. What responsibility, if any, has a manufacturer who is supposed to file a BM 1 and/or BM 2 report, (a) where the Census Bureau has not issued the form in time to meet the deadline, and (b) where the Census Bureau did not mail the blanks to the soapmaker?

A. The responsibility is upon the manufacturer to obtain his forms as soon as they are available and file them promptly.

ALASKA

(n)

Q. Under FDO-42 is Alaska considered a part of "Continental U. S."?

A. No

IMPLEMENT OF WAR

Q. Is any soap product exempt from quota restrictions because it is used in or is an "implement of war"?

A. No

EFFECTIVE DATES OF QUOTA LIMITATIONS

(p)

Q. What are the effective dates (beginning and end dates where limitation by various percentages has been applied and changed)?
(a) The 88% fats quota?
(b) The 84% fats quota?
(c) The 150% foots quota?
(d) The 100% foots quota?
(e) The restriction on use of certain oils listed in (e) 1 and 2, in soapmaking?
(f) The non-detergent exception to the definition of "soap"?

A. (a) 10-1-42 to 12-31-42
(b) 1-1-43 to date
(c) 10-1-42 to 4-1-43
(d) 4-1-43 to date
(e) 1-7-43
(f) 10-1-42

ANSWERS TO QUESTIONS ON FDO-33, WHICH REQUIRES RECOVERY OF GLYCERINE

TESTS FOR RECOVERY STANDARDS ON SAPONIFICATION

(b) (1) (i)

Q. What practical, inexpensive test or procedure can a soapmaker employ to make sure not more than .80 glycerol remains in the soap?

A. He may analyze a few samples of his soap from typical batches and subsequently standardize boiling

and washing procedures and follow up occasionally with check analysis to assure himself that his standardized procedure is giving him the required results.

Q. In determining anhydrous soap basis for the purpose of applying the recovery percentages, what must a soaper take into account?

A. The anhydrous soap basis shall be that portion derived from fats and oils but exclusive of any portion of the soap which may be made from rosin, commercial fatty acids, vegetable oil foots and tall oil.

ADDED GLYCERINE IN SOAP PRODUCTS
(b) (1)

Q. What rules govern the addition of glycerine to shaving cream and transparent glycerine soap?

A. Glycerine may not be added to shaving cream or transparent soap unless a specific allocation for that purpose has been made under FDO-34.

DUTY OF SOAPMAKER WHO DOES NOT PRODUCE CRUDE OR REFINED GLYCERINE
(b) (1) (ii) and (b) (1) (iii)

Q. Where the soapmaker does not produce crude or refined glycerine himself, but merely sells his spent lyes or sweetwaters to a refiner, to what extent is he obliged to see that 92% or 94% of the glycerine is recovered?

A. His only obligation is to assure himself that his soap does not contain more than the permitted quantity of glycerine and that none of the lyes or sweetwaters is lost.

REQUESTS FOR EXEMPTION

Q. What must a manufacturer who is recovering the maximum amount of glycerine that is reasonably possible with his facilities do in order to obtain an exemption?

A. He should write a letter addressed to the Glycerine and Soap Unit explaining in detail why he is unable to comply with the order and state the quantity of fats and oils used by him monthly and the free fatty acid content of these materials. He should also cover the efforts he has made to comply. On the basis of this letter his request will be considered and if deemed meritorious temporary exemption from the restrictions may be granted. An outline of information required on all appeals for exemption will be furnished by the Glycerine and Soap Unit on request.

EXEMPTION OF U.S.P. XII SOAPS
(d) (4)

Q. What is the significance of using the word "medicinal" twice in the exemption of U.S.P. 12 soaps? Is the intent to exempt from all glycerine recovery requirements U.S.P. 12 soap sold for medicinal use? If FDA regarded some soaps therein as not medicinal, please explain.

A. All of the soaps indicated in U.S.P. 12 are exempt. The reason for the requirement that they be used only for medicinal purposes is that some may conceivably be used for general purposes.

STATUS OF FOOTS
(d) (5)

Q. Are "foots" considered "fats and oils" for the purpose of applying the recovery percentages?

A. No.

Q. If a manufacturer's monthly consumption of fats and oils and fatty acids is 10,000 lbs., and he uses 5,000 lbs. of foots in addition, is he subject to the glycerine recovery provision?

A. Yes.

REPORTS
(e) (1)

Q. Must every soapmaker who produces 80% soap lye crude file form FDO-34-1 (formerly PD-363A) monthly, regardless of the quantity of crude he produces?

A. Yes.

Q. What is the purpose of requiring PD-712 reports from a person who saponifies more than 3500 lbs. of fats and oils monthly, when the glycerine recovery provisions do not apply until he saponifies more than 10,000 pounds?

A. The reason for this requirement is that it is necessary to find out how much glycerine is being lost by the 10,000 pound exemption with the thought that as the need arises this exemption can be further reduced to 3500 pounds.

Q. What manufacturers of soap are required to file reports on glycerine recovery (Form PD-712)?

A. Any manufacturer who uses in a calendar month, over 3500 pounds of fats or fatty acids or fatty acids from foots, is required to fill out a report for the month.

Q. If a soap manufacturer uses less than 10,000 lbs. total of all types of fats and fatty acids in the calendar month and is therefore not required to recover glycerine, how does he fill out the report? (Assuming quantity used was over 3500 pounds and the manufacturer is required to report.)

A. He shows under Table I the fats, fatty acids, etc., consumed and their weight. He shows under Table II the type of soap produced. He signs the report under statement "A".

Q. A soap manufacturer washes the soap he produces and sells the glycerine bearing lye to a refiner who does the treating and recovers the glycerine as crude. How does this soap manufacturer make out form PD-712?

A. He shows under Table I what fats and oils he used during the month and under Table II what types of soap were made. Under Table III he states to whom the lye was sold or delivered and its content in pounds of 100% glycerine if the figure is available. If he has removed glycerine from his soap so that the finished product contains not more than the quantity allowed by the order, he signs the report under statement "A"—otherwise he signs under statement "B".

RECORDS
(e) (3)

Q. Is FDA likely to make compulsory the keeping of glycerine records in accordance with the form sent out December 26, 1942 by the Soap Association at the request of FDA?

A. No.

ANSWERS TO QUESTIONS ON FDO-34, ALLOCATING GLYCERINE DISTRIBUTION AND USE

ALLOCATION DENIAL BARS USE OF SMALL ORDER EXEMPTION
(b) and (c)

Q. When a glycerine consumer files for glycerine on Form PD-600 for various end uses and is allowed glycerine for some and denied for others, may he apply to his supplier under the small order exemption clause (paragraph (c), FDO-34)?

A. No. Any authorization received from the Government to accept delivery and/or use of glycerine closes the door on the consumer's right to use this small order exemption clause, by reason of par. c (4).

GENERAL NON-ALLOCATION PERMITS USE OF SMALL ORDER EXEMPTION
(b) and (c)

Q. When announcement is made that glycerine will no longer be specifically allocated for a particular end use, does this prohibit the use of glycerine for the particular end use?

A. No, the only prohibited use of glycerine is in anti-freeze. All other end uses of glycerine denied specific allocation may be continued but the quantity of glycerine that may be used is limited by the small order exemption clause (paragraph (c), order FDO-34).

GLYCERINE USE LIMITED TO ALLOCATED PURPOSE
(b) (1)

Q. When glycerine is obtained by allocation, is there any restriction on its use for the purpose for which it was allocated?

A. Glycerine must be used for the class of use for which it is allocated.

(*Turn to Page* 135)

SOAP RATIONING . . .

A brief study of the system in Britain for the control of soap and cosmetic sales

by Margo Pye
Edinburgh, Scotland

THE fourth year of war in Great Britain finds the soap and toilet preparations industry stripped to bare essentials,—yet still functioning efficiently under rationing controls which in normal times the industry would have believed itself unable to tolerate. It should be kept in mind in judging the performance of the industry under our very strict rationing controls, however, that at one time Britain stood too near the brink of disaster to worry about financial loss. Some complaints have naturally been leveled at details of our soap and cosmetic rationing programs, but on the whole, all sections of the industry have worked with exceptional effort to make them a success.

In any approach to the subject, it must be kept in mind that soaps and cosmetics have received completely different treatment. Soap has been rationed; cosmetics have not. The reasons for the difference in treatment are readily apparent when the underlying principles behind British rationing policy are considered. Whether or not to ration is determined principally by degree of use. Thus, in Britain we drink tea four times daily, and everyone almost without exception is a tea consumer. On the other hand, by comparison with an American household, we drink comparatively little coffee. Thus we ration tea because it is a daily and universal necessity; but we leave coffee unrationed and allow anyone to buy as much as he can or cares to.

To attempt to ration a commodity not in general daily use has been considered so unsound in principle that any such attempts have been abandoned. Soap is in daily general use and can therefore be rationed successfully. Turning to cosmetics, it is immediately evident that the general theory behind rationing cannot be applied successfully. Only a limited section of the population uses cosmetics, and use is by no means stabilized or standardized. Neither by age, sex nor appearance could the right to buy cosmetics be assessed. Were rationing to be attempted, the only alternative would be a cosmetic ration book for everyone. This would of course lead at once to transfer of coupon books, sale of unwanted supplies through black markets, and a whole routine of evasion. This has been avoided by the elementary alternative procedure of simply limiting and restricting production.

Soap rationing is thus a controlled, fixed weekly allocation per person, while cosmetics are freely available to the buyer who can find and pay for them. So far as users are concerned, both systems have apparently functioned satisfactorily. In the early days of the war, before the system of controls was perfected, there were of course many abuses, most of which have by this time been eliminated. There existed for a time, it must be admitted, a rather widespread black market in cosmetics, and some small sale through such channels no doubt still persists. The main problem, however, was one of preferential treatment of favored customers by manufacturers, wholesalers and retailers. All along the sales line, it was found that sellers were in many cases favoring particular buyers, tipping them off when limited supplies were available, and taking care of them to the exclusion of less favored buyers. Another associated evil was the practice of some sellers of freezing stocks in an attempt to get the advantage of rising prices as shortages intensified.

Another source of difficulty was the invasion of the cosmetic field by a group of amateurs, lured by the combination of high prices and short supplies. While the production of the legitimate manufacturer was limited by the withdrawal of labor or raw materials, or conversion of his plant to war work, no such limitations could effectively be imposed on newcomers to the trade. Druggists and hairdressers, incidentally, were the chief offenders. With a little second-hand knowledge of soaps and toiletries, they quickly set about manufacturing their own brands. This extra source of supplies was at first welcomed by the public, and a run on the home-made brands encouraged the amateur manufacturers to increase their output. In doing so, the misused raw materials and containers intended for the professional trade were diverted from their intended use, further intensifying the problems of legitimate manufacturers.

Such a situation could not of course be permitted to continue, and steps were quickly taken by the government to deal with the situation. The most successful expedient was found to be registration of all pre-war manufacturing sources, and the allocation of raw materials only to such manufacturers. Misuse of raw materials and containers by druggists and hairdressers, and by other new-comers attempting to profit from the situation has now been stopped almost completely.

No longer able to obtain materials or containers, fly-by-night trade has been abolished overnight, so far as it has any importance to the whole. No doubt such manufacturing is still continued, but it is in disrepute and is rigorously dealt with as and when it is traced. The general opinion is now expressed that this illegitimate trade has been suppressed, and it cannot be too certainly stated that it is in the national advantage to have this done. To allow outsiders to enter a trade, while at the same time controlling or removing the men already in it, is so contrary to the scheme of things, that it had to end. The misfortune in all such cases is that it takes some time to collect data on such developments, and longer still to get the official action necessary to control them.

Another important development in its effect upon the cosmetic industry was the recent decision to apply a purchase tax to all luxury lines. This was originally fixed at 33-1/3% and later raised to 66-2/3% of the value of the sale. Under this system, the Government made a purposeful effort to stop sales of goods not vital to the war effort and included all cosmetics as such. It argued that rationing was impossible but that there are more ways of killing a pig than by cutting its throat. They are thus trying to strangle the cosmetic trade, and at the same time to collect taxes by making it expensive to buy cosmetics. This policy was carried a stage further when on April 15th the tax on cosmetic goods was advanced to 100%.

That brings us up-to-date on the cosmetic position. It only remains to be said that in the past few months the Government has relaxed its controls on raw materials somewhat and the trade is to be allowed a better supply of production necessities. That good news is witnessed by better supplies of powder, talcum, lipstick refills (for we no longer have metal for holders or containers and use paper or pasteboard) soaps and even perfumery in all the shops and the lack of queues for such goods. No longer does one get the underground message that so and so has lipstick; it can now be bought normally,—although at high prices, thanks to the 100% tax.

Against this there is a defect, in that the Government, while releasing more materials to the industry has asked it to concentrate further. That will involve the elimination of certain manufacturers and the continued operation of only a selected few firms in the industry, charged with the job of making the total production which the Government wants made.

It is thus that one must think these days in Britain; no longer does productive capacity count. What does count is "how much are we allowed to make," and it is that question which the industry is now facing. There are no factual details at the present moment, and the detailed steps will undoubtedly take time, but there would appear to be no doubt but that the cosmetic industry is in for further enforced concentration.

For the moment, however, supplies are more plentiful and more expensive (by Government command) than they have been for three years, the black market has been practically eliminated, and the trade is more concerned with the post-war outlook than with the immediate war position, since that cannot be improved by them, and is solely in Government hands.

IN the soap industry, as indicated previously, rationing was possible and indeed essential to save materials and at the same time to insure equitable distribution. It was to defeat the evils which we have examined in the cosmetic field that the soap arrangement was first made.

The results of the rationing scheme have been in every way satisfactory, and no praise is too high for the administrators who have been responsible. Right from the start, the scheme worked excellently and today is functioning as well as any other rationing scheme we have. It might indeed be claimed that we are getting a surplus of soap products under rationing, and that the average household cannot and does not use its complete ration.

This is based at the rate of one pound per person per month, and can be taken either in toilet soap, household soap, or soap flakes or cubes. Scouring powders and abrasives are outside the rationing scheme and sell normally, the supply being equal to the demand in all areas checked. By far the largest trade is done by grocers who cover the bar and household trade, the soap and washing soap trade and the toilet trade too. Druggists do a considerable toilet trade, while department stores cover all types to a lesser extent.

The fact that soap is not edible may have something to do with the ease of operation of the rationing scheme. While we are short of rationed foods and are only too glad to supplement with all the unrationed food we can buy, it has been possible for the average householder to get along up to this point on his reduced soap ration, without any serious damage to national health and morale. The fluidity of the scheme, which allows the ration to be drawn in any form, has been particularly helpful in making soap rationing workable.

What actually happens is this—Mrs. Smith who has a big family and needs powders and flakes for home washing buys her normal quantities and possibly trades toilet soap of the fancier types with Mrs. Brown next door, who does not have a family, but does have an affection for toilet soap. Family groups exchange rations and types of soaps so that it all works out well in the long run.

The customer is under no necessity to buy his soap from any one retailer or type of retailer, nor is he or she required to register for soap.

The only contol lies in the general food ration cards which are marked by the retailer with an appropriate weekly symbol with pencil. In cases checked by the writer the ration seems to be ample and most buyers are voluntarily abstaining from buying beyond their needs. It is to meet this situation that the supplier and the dates have been left open on the ration card, since it is not possible to tie dealer and customer firmly together unless there is a guarantee that the dealer will not be left with surplus supplies on hand.

One advantage does develop to the retailer in that a customer taking food rations tends also to buy soap rations from the same source. Thus, a considerable amount of the chance trade formerly done by department stores, druggists, etc., has been switched to the corner grocery stores in the suburbs, who are coming into their own with a vengeance. With transport cut, and with little reason to visit the city centers in any case, buyers are tending more and more to give their trade to the nearest local store. Retailers in suburban districts, while suffering in the general cut of business, have been selected by such rationed buyers for food purposes, and are cashing in on soap sales as well.

It is inevitable that national brands will suffer in this rearrangement of retailers, and that manufacturers will be forced to develop new sales outlets after the war. At present, however, no such need has arisen, as sales are largely automatic and controlled by the readiness of the public to absorb their ration.

INTO this situation, the Government has moved with a demand that the soap industry now concentrate itself. This will inevitably mean the elimination of certain firms. In Parliament recently, the Ministry of Food indicated that the soap industry was already in process of concentration and that certain soap plants were now closing down. The broad outlines of the scheme for concentration have been approved by the Council of the Soap Makers and Fat Splitters Federation and approved by the trade as a whole.

Earlier, details of the firms in the industry which had been selected by the Federation as "nucleus" firms permitted to carry on manufacturing under the concentration scheme, had been refused. It was claimed that the list was only a provisional one and could not be disclosed to the trade until the whole position was settled.

Plans for concentration of the industry are now believed to have advanced a considerable distance, and it would seem that the list of selected firms has been fixed and is known to the Council of the Federation. In due course, it will be made public. These developments would seem to indicate that either the present stock of soap is adequate to maintain the ration with a lesser manufacturing strength, or that the ration may be cut as a result of the decrease in production. Either outcome is highly possible, with general opinion leaning towards the first explanation since it could be argued that national health requires the maintenance of the existing ration.

One other point of interest is that at this same Parliamentary occasion a question was raised on the possible desirability of introducing zoning of soap. It was asked why zoning had not been adopted in the soap industry since concentration has.

Zoning means the limitation of area within which the sales of a certain makers' brands may be sold, and this policy has been widely adopted in nearly every other industry. To date it has not been adopted as far as soap is concerned, so that a man or woman in the far north of Scotland is still able to buy almost all the types of soap formerly bought in the prewar days.

This question undoubtedly shows that the industry is being watched and that other industries, already beheaded, or hung drawn and quartered, are not likely to allow any more favorable terms to soap makers. There is thus a possibility of zoning being introduced, although the official reply given on the occasion referred to was that the two schemes serve different purposes (and presumably zoning need not necessarily follow concentration in the soap field.)

Summing up the whole situation, it must be admitted that the soap and cosmetic industry has fared as well as most in war time Britain. It has not been eliminated nor has it, on the other hand, boomed like metal and aircraft production. But both sections have been regarded as necessary industries and that in Britain at war, is enough to make manufacturers half-happy. Even with concentration in the air, the trade is confident that the war time record of the soap, cosmetic and allied trades will stand analysis as a clean and competent one, and one that has helped to maintain the nation through one of its most trying periods.

Soap Sales Rise 15%

Although manufacturers' sales of soap rose seasonally for the first three months of 1943, they were still 15 per cent short of the record 1942 first quarter. Compared with the first quarter of 1941, sales this year were 10 per cent ahead. The figures, reported in the quarterly Sales Census of the Association of American Soap and Glycerine Producers represent the output of 70 manufacturers who report their sales totals to the association office. Sales for the first three months of this year totaled $91,392,712—a gain of 6 per cent over sales for the last quarter of 1942. In the first quarter of 1942 sales of soap totaled $107,380,552.

Poundage total for the 63 makers of soap other than liquid was 716,592,791, which represented a drop of 20.3 per cent below that of the comparable 1942 period. The poundage total was the lowest for the particular quarter since 1940. It did represent a slight increase above the fourth quarter of 1942.

Liquid soap sales, as reported by 41 manufacturers, in contrast to other than liquid soap sales, registered gains over the same period in 1942 in both gallon and dollar volume. In the first three months of 1943, 752,000 gallons of liquid soap sold for $781,013. This figure is the highest for liquid soaps since the Association records began to be kept in 1935. First quarter 1943 sales represented a gain of 5.1 per cent in volume over the first three months of 1942, and of 22.8 per cent over the last quarter of 1942.

THE WAY IT LOOKS IN Washington

by

H. C. HALLAM

IMPOSITION of ceiling prices on soap; release of certain fish oil inventories; suspension of the general freight rate increases May 15; favorable Senate action on legislation to require coloring of certain poisonous insecticides, these are some of the recent most important Washington developments of interest to the soap and sanitary chemical specialty industries. Maximum prices have been fixed on flaxseed and linseed oil, and measures for conservation of meat fats and greases are, at this writing, expected before long by industry representatives.

The Office of Price Administration has placed wholesale and retail price ceilings on soaps and soap products, effective May 24. They are covered in Maximum Price Regulation No. 391 (Household Soaps and Cleaners Sold by Manufacturers and Certain Wholesalers) and MPR No. 390 dealing with those products sold by retail food stores. The prices established are those which prevailed in January, 1943, which also prevailed in January, 1942.

The maximums are on a dollars-and-cents basis, brand by brand, on sales from the manufacturer down through the retail grocer. OPA said the retail prices established do not represent an increase in the general level of soap prices and will bring reductions in some stores. Sales by retail outlets other than grocers remain under the General Maximum Price Regulation, which permits the retailer to charge his March, 1942, high.

When prices were frozen at that level, OPA explained, a February, 1942, increase by the manufacturers had not yet been reflected in retail prices. In June of that year, leading soap manufacturers voluntarily rolled back their prices to eliminate the previous increase and take the pressure off their distributors. The prices are set on nationally distributed brands and on certain regional soaps which enjoy wide sales. OPA says soap sales at the manufacturers' level were $364,000,000 in 1942 for 75 manufacturers believed to account for approximately 90 per cent of all soap sales.

The Food Distribution Administration, Fats and Oils Division, announced last month that it is prepared to accept petitions for the use of fish oils for soap making. Soap manufacturers' stocks, frozen some time ago by government order, may now be released upon application. Government statistics show that on March 31, last, there were 125,000,000 pounds of factory and warehouse stocks of "other fish oil except liver oil," which is covered by the new order. A considerable part of this belongs to the government, however, it is stated. Possible relief for soapers from this direction is also limited by the fact that, only a comparatively few manufacturers having hydrogenation plants are said to have considerable stocks of these oils.

The Senate Committee on Commerce has ordered a favorable report on Senate Bill, 897, supported by household insecticide manufacturers, which proposes to require that powdered white insecticides containing arsenic or fluorine compounds be artificially colored. Purpose is to avoid such tragedies as recently occurred from substituting poisonous uncolored insecticides for flour.

Restoration of many fishing boats to their owners is contemplated under another bill, signed by the President. The government requisitioned hundreds of such vessels early in the war, but many may now be returned to enable increased production of fish and fish oils.

Members of the National Association of Insecticide and Disinfectant Manufacturers, who have been anxious about obtaining sprayers, have been advised that the War Production Board is disposed to give favorable consideration to orders in the hands of sprayer manufacturers for the release of steel from which to manufacture sprayers. There is estimated to be enough blackplate available to make 2,000,000 sprayers, or

about a third of the number made last year.

Insecticide manufacturers have been advised to restrict orders to 8-ounce and 16-ounce sizes, plain style, glass reservoir, and ask sprayer manufacturers to apply on Form PD-500 to the WPB Insecticide and Fungicide Unit for permission to manufacture the sprayers. Insecticide manufacturers should also write to that unit that orders are placed.

Because of strong congressional sentiment against price ceilings on farm products, among other causes, the fixing of maximum prices on flaxseed and linseed oil was long delayed. Action was finally taken on May 21, when a basic price of 14.5c a pound was set for raw linseed oil. Simultaneously a basic price of $3.05 a bushel was set for flaxseed.

It was indicated in government war agency circles that a "yes" or "no" answer might be expected soon on the request of industrial consumers of fats and greases for an order requiring tallow, suet and other fat to be trimmed off meat before it goes to the household consumer, in order to provide additional raw material for soap and other industries. Some of this would be done in the packing plant, some in the butcher shop, it is said.

Before the war the butcher customarily weighed fat in with meat, then cut off some fat, which went to fat-using industries. Now, however, owing to the meat scarcity, the tendency has been to sell more and more fat to the housewife, in hamburg, sausage, etc., thus "diluting" her family meat ration and depriving the soap industry of needed fat.

The Bureau of Raw Materials for American Oils and Fats Industries has recommended the proposed new industrial fat conservation measure, in which it has been joined by certain government officials. The matter has been held up, however. A similar measure was said to have been in effect during World War I. Canada has an order now requiring removal of certain fats from beef carcasses by the packer. The War Food Administration, Meat and Livestock Branch, and OPA, are stated to be "carefully considering" the industry proposal.

ABOUT the same time that the general freight rate increases allowed by the Interstate Commerce Commission, in its decision in Ex Parte 148, were suspended effective May 15 and until December 31, next, resulting in large savings in rates on soaps, insecticides and other materials, the Bureau of Raw Materials petitioned the ICC to investigate and suspend rate increases proposed by the railroads effective May 24 on imported vegetable oils from South Atlantic, Gulf and Pacific Coast ports and on domestic oils from Atlantic ports, to Cincinnati, Louisville, Jeffersonville, Ind.; Kansas City, Chicago and other destinations. The increases ranged as high as 19 cents. OPA also filed a protest against the increases. Other protestants included Procter & Gamble, Blanton & Co., and Colgate-Palmolive-Peet Co.

The carriers had proposed the increases purportedly in complying with ICC decision in the Mississippi Cottonseed Crushers Association complaint against Atlanta, Birmingham & Coast Railroad. The Commission held in that case that cottonseed and soybean domestic oils were interchangeable and highly competitive with imported oils, chiefly coconut and palm, "on which it is proposed to maintain the water competitive rates for food purposes and to a very material and substantial degree in soap making." The carriers also proposed increased rates on fish oils from certain Atlantic ports to Chicago, St. Louis and Ivorydale.

In its petition the Bureau of Raw Materials asserts that there is no such competitive basis for the Commission's order, at this time, because under government orders it is impossible for edible domestic and imported oils to compete with each other; because coconut and other high lauric acid oils may not be used for food purposes; nor can palm oil. Government orders prohibit cottonseed, soybean, corn, peanut and other domestic edible oils to be used in soap making. It was also pointed out that all imported and domestic vegetable oils are under price ceilings, and it was argued that no benefit could be gained by domestic vegetable oil producers from the increased freight rates.

FDA announced last month that sales of high lauric acid oils from government stockpiles would be made to those firms that have sold their M-60 inventory quota to the Commodity Credit Corporation and who will use any oils sold to them in conformance with government food distribution and other orders controlling use of fats and oils. 40,000,000 pounds, more or less, was the estimated quantity of lauric acid oil repurchasable under this program. Firms interested were advised to get their applications into the FDA Fats and Oils Branch by mid-May.

BY a series of orders OPA has recently—

1. Revised maximum prices for sales of crude and refined glycerine to fit more exactly conditions in the industry by substituting for Revised Price Schedule 38, Maximum Price Regulation No. 38, effective May 17, although it incorporates without change the prices established in the schedule. The new regulation changes definitions of "converter," "carload," "car," "case," and makes other changes technical in character.

2. Allowed processors' branch houses and car routes to charge the same maximum prices in sales of standard and hydrogenated shortening and cooking and salad oils to retailers as are allowed to wholesalers, by Amendment 27 to Revised Price Schedule 53.

3. Ruled that the total price paid by the buyer for fats and oils, including brokers' commissions, may not exceed the ceiling price specified in Regulation 53.

4. Allowed copper sulfate distributors to charge retail ceiling prices in their retail sales of quantities less than 300 pounds when for use as an agricultural insecticide or fungicide, by amendment to MPR 354, effective May 17.

5. By Amendment No. 2 to MPR 298, effective May 21, fixed maximum prices for 5 per cent crude rotenone root at 22 cents per pound.

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RAW MATERIALS for POTASH SOAPS

FDA officials review raw material problems of potash soap industry at informal conference in Washington, May 7. Early relief expected.

By A. P. Federline

Secretary Potash Soap Division
Assn. American Soap & Glycerine Producers

WHAT steps the Government might take to help potash soapmakers get enough raw materials to continue producing soaps for war and essential civilian needs until fatty acids from new crop edible oil refining foots become available in quantity next fall, were discussed at an informal conference in Washington on May 7 attended by officials of the Fats and Oils Branch of FDA and representatives of 19 potash soapmakers and of the Potash Soap Division of the Association of American Soap and Glycerine Producers, Inc.

Dr. C. W. Lenth, Acting Chief of the Soap and Glycerine Division of the Food Distribution Administration, presided at the meeting and C. T. Prindeville, Chief of FDA's Fats and Oils Branch participated. In his opening remarks, Dr. Lenth pointed out that the scarcity of raw materials for soapmaking was not a problem peculiar to potash soap, but was common to every group in the soap industry. While the problem was more acute for potash soapmakers because they use foots fatty acids, he viewed it as temporary and one that might be solved, perhaps permanently, when new crop oil refining foots become available to fatty acid manufacturers around September 30 next.

Strong statements about essentiality of potash soaps in the war economy were made by Russell Young, Chairman of the Association's Potash Soap Division, Dudley Bachrach representing the Clifton Chemical Co., and S. J. Miller representing the DuBois Soap Company. Dr. Lenth replied that FDA was willing to go as far as it could in helping potash soapmakers solve their problem, provided the loss to the nation in glycerine recovery was not disproportionate to the gains of the small business units that make up the potash soap industry. Much of the discussion that followed was in the nature of an attempt to evaluate the glycerine recovery loss that would result if the FDA should grant remedies that were proposed. Both Dr. Lenth and Mr. Prindeville emphasized the point that the Government's urgent need of glycerine for war use made essential maximum recovery of glycerine from soapmaking operations.

During the conference Dr. Lenth announced that FDA intended to give careful consideration to—

a) Removing the foots substitution clause from FDO-42 except for liquid, potash, cold-made, and semi-boiled soaps; and

b) Granting temporary permission to potash soapmakers to use whole linseed oil without recovering the glycerine therefrom as required by FDO-33

and, in addition, that the FDA expected to take early action on—

1) Allocation of low titre red oil;

2) Permission to use fatty acids derived from edible oils (not necessarily from foots) in the manufacture of soaps for non-detergent purposes;

3) Removal of fatty acids from the exemption clause in FDO-33 so that those who use not more than 10,000 pounds of fats and oils (not including fatty acids) in a calendar month will not have to recover the glycerine therefrom; and

4) Assistance to fat splitters in getting priorities for materials to increase splitting (not distilling) capacity.

The stand taken by the FDA officials that potash soapmakers must apply individually for temporary permission to use whole linseed oil and support their requests with enough data to enable FDA to evaluate accurately the glycerine recovery loss involved, was regarded by everyone as reasonable. It was agreed, therefore, that Dr. Lenth, with the help of A. E. King, Acting Chief of FDA's Soap Section, and A. P. Federline, Secretary of the Association's Potash Soap Division should draft immediately, and the Association should distribute to all known potash soapmakers, a form of appeal they might follow in requesting FDA permission to use linseed oil without recovering glycerine. Separate applications must be filed for each month. They may be mailed any time after the first, but not later than the 20th day of the preceding month. Soapmakers who do not expect to use more than 10,000 pounds of fats, oils, and fatty acids in a given month were asked not to apply because their operations are exempt from the glycerine recovery requirements of FDO-33.

Roscoe C. Edlund, Manager of the Soap Association, informed the group that the Association's Board of

Directors at a meeting on April 20, considered a report that the request of a potash soapmaker to be allowed to use temporarily linseed oil without recovering glycerine therefrom as required by FDO-33 had been denied by FDA on the ground that fatty acids were available. The Directors also were informed that a survey showed that potash soapmakers had found it impossible to purchase fatty acids, and that without fatty acids or other relief, a large number of them would have to close down their business. With this information before them, the Directors had voted that the Government should either indicate how fatty acids can be secured, or accede to the type of request made by those who requested permission to use temporarily whole linseed oil. Mr. Young, Chairman of the Potash Soap Division, had been instructed by the Directors to present their view to the April 21 meeting of FDA's Industry Advisory Committee.

Many other points of interest to potash soap manufacturers developed during the discussion. For example, low titre red oil allocation may be expected very soon. Users of more than 2,200 pounds monthly probably will be required to apply on a form similar to PD-600 on or before the 15th day of the month preceding month of use.

If the foots substitution clause of FDO-42 is amended, it would mean that only those who make liquid, potash, cold-made, and semi-boiled soaps, could substitute foots fatty acids for primary fats and oils used in the base period. Soda soap manufacturers would be allowed to use foots and their fatty acids only in proportion to their use of foots and such fatty acids in the base period.

Because many soapmakers do not seem to know that they may use edible oils to make soaps for non-detergent purposes, FDA will issue soon an interpretation assuring them it is permissible. Potash soapmakers therefore, could purchase and use fatty acids split directly from whole edible oils (not necessarily from foots) at any time they were making soaps for non-detergent purposes.

Another measure of relief that potash soapmakers may or may not be taking advantage of is that FDO-33 exempts from glycerine recovery fats and oils in certain USP soaps used to fill orders for medicinal use only, and also soft soap, hospital grade, manufactured under the U. S. Army Specification mentioned in the order, for delivery to the Army. Dr. Lenth pointed out that any manufacturer who takes advantage of the medicinal soap exemption must believe that the soap is to be used for medicinal purposes. To be fully protected, he should inform his jobber that the soap he is selling him under the USP exemption is "to fill orders for medicinal use only."

Mr. Prindeville suggested the possibility of routing fatty acids with high color and strong odor like those from linseed oil, to fatty acid users other than soapmakers. FDA could deny the use of fatty acids with good color and odor to products that could use the less desirable kinds of fatty acids.

Chairman Young of the Association's Potash Soap Division, stressed the point that fatty acids from soybean oil make better potash soap than linseed fatty acids, and requested that the Fats and Oils Branch permit the use of soybean instead of linseed oil whenever there was an excess of soybean oil stocks. Mr. Prindeville

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The following form is suggested for use by soap makers in applying for FDA permission to use whole linseed oil in making potash soaps, without recovering the glycerine therefrom. Applications for such use during July must be mailed by June 20 to A. E. King, acting chief, Soap Section, Fats and Oils Branch, Food Distribution Administration, 2115 Tempo S, Washington, D. C. Separate applications may be filed later for succeeding months. The deadline for June applications was May 20. If total consumption of fats and oils in any given month will not exceed 10,000 pounds, it is not necessary to secure FDA permission for such use of whole linseed oil.

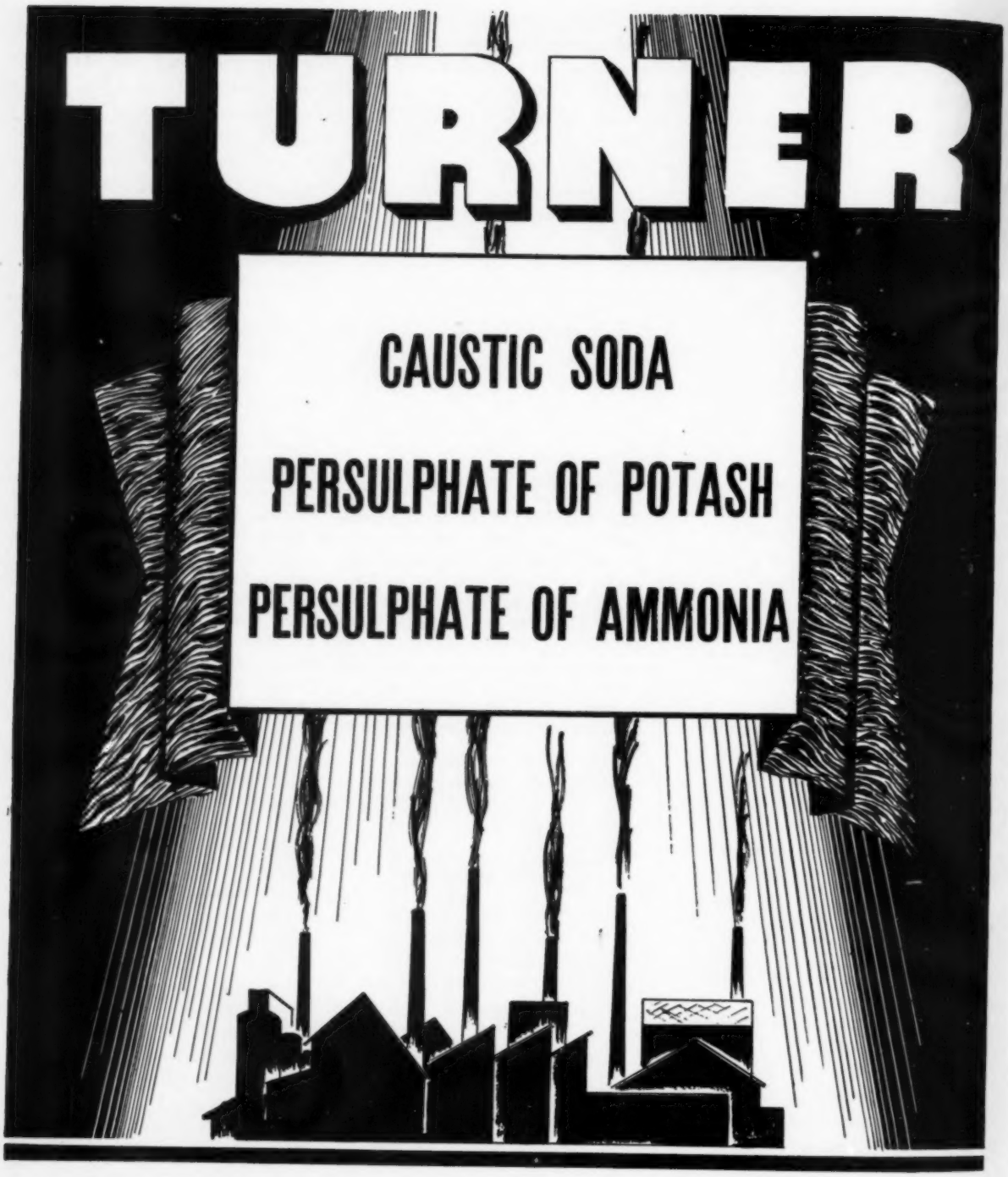
Permission is requested to use during the month of ....., 1943, in manufacturing potash soaps, whole linseed oil without recovering the glycerine therefrom as required under FDO-33, and in support thereof we submit the following:

1. The total pounds of fats, oils and fatty acids we used in the base period was—

	1940	1941
First Quarter	..... lbs.	..... lbs.
Second Quarter	..... lbs.	..... lbs.
Third Quarter	..... lbs.	..... lbs.
Fourth Quarter	..... lbs.	..... lbs.

2. We estimate that our quota requirements of fats, oils and fatty acids in June, as allowed by FDO-42, will be ..... lbs.
3. Our estimated additional use of fats, oils and fatty acids in the manufacture of quota exempt soaps under FDO-42 during June will be ..... lbs.
4. We estimate that from inventory and normal supply channels, our total supply of fatty acids will be ..... lbs.
5. We request permission to use in addition to the above ..... lbs. of whole linseed oil, without recovering the glycerine therefrom as required by FDO-33, which will be used only during the month of ..... in soapmaking and which will not be added to either raw materials or finished goods inventory.
6. (To be filled in only when making requests for July, August and Sept.) In the previous month we used ..... lbs. of whole linseed oil.

Respectfully,



JOSEPH TURNER & COMPANY

RIDGEFIELD, NEW JERSEY

83 Exchange Place, Providence

40th St. and Calumet Ave., Chicago

NEWS

Offer New Protective Cream

Nielco Chemical Co., Redford station, Detroit, has developed a new skin protective cream, "Pro-Tek-Tor No. 6," for use by workers having contact with cutters and lubricating oils, kerosene, petroleum, solvents, thinners, lacquers, paint, ink, etc. Promotional literature makes an especial appeal to women war workers.

Shot Misses Federline

Andrew P. Federline, assistant manager of the Association of American Soap & Glycerine Producers and well-known in soap industry affairs, narrowly missed serious injury May 20 when a rifle bullet crashed through the window of a Long Island Railroad train close to his head. The incident occurred shortly after dark as the train neared Rockville Centre, L. I. where Mr. Federline lives. Investigation by the police indicated that boys were responsible. Mr. Federline was reminded of his World War I days with the A.E.F. in France.

Lever Wins Safety Award

Lever Bros. Company's Hammond, Ind., plant was listed among winners of awards conferred by the Greater Chicago Safety Council last month in an inter-plant truck drivers no-accident competition covering a twelve-month period.

Colgate to Sell Pro-rata

Colgate-Palmolive-Peet Co. has just announced adherence to a "Fair Distribution Plan" under which the company undertakes to distribute the goods which it is found possible to manufacture for civilian use to all its dealers, large and small, on a fair and equitable basis. As a corollorary to this plan the company has announced that it will confine its merchandise for civilian use to those dealers who have been regular customers in normal times.

O'Brien Shulton Personnel Manager

Francis J. O'Brien has been appointed personnel manager in the Hoboken plant of Shulton, Inc., manufacturer of "Early American" and "Friendship's Garden" toiletries. Mr. O'Brien formerly was in a supervising capacity in the commercial relations department of the New York and Queens Branch of the Consolidated Edison Company, with which he was associated for fourteen years.

BIMS Golf June 23

BIMS of New York will open the golf season for 1943 with a tournament at Wykagyl Country Club, New Rochelle, N. Y., according to Martin Schultes of Hewitt Soap Co., chairman. Only two tournaments will be held this year instead of the customary four. Both will be at courses adjacent to railroad facilities to avoid transportation difficulties. The second and final tournament of 1943 will be held at the Garden City Country Club at Garden City, Long Island, on August 24th. Prizes will again be war stamps and bonds at both tournaments.

Credit Men Re-elect Nippert

G. H. Nippert, office manager and supervisor of credits for the Procter & Gamble Distributing Co., for the district covering northern Illinois and Indiana, was re-elected president of the Chicago Association of Credit Men at their spring business meeting. Reporting on credit conditions throughout the United States, Mr. Nippert declared that collections have shown the greatest advance during the past twelve months for any similar period in the Association's 47-year history. During April 93 per cent of the manufacturers, wholesalers and distributors, reporting from all types of industries, declared collections "good," he stated, and only 7 per cent reported "fair." In the past twelve months only two reports have shown collections "poor," which Mr. Nippert termed "a really amazing situation."

Introduce New Cleaner

Berman Chemical Co., 304 Tenth St., Toledo, has announced a new cleaning compound, "Bull Frog Saf-T-Klenz," for removing industrial grime from factory windows, rust and stains from wash bowls, toilets, fountains and shower floors and walls. Produced in dry powder form, the company claims product contains nothing harmless to skin, clothing or drains, produces no fumes and is slip-proof.

Howard Young Commissioned

Howard G. Young, sales manager of the bulk department of Davies-Young Soap Co., Dayton, Ohio, has just been commissioned as a lieutenant (j. g.) in the U. S. Navy. He was to report at Fort Schuyler, New York, May 28, for his indoctrination course.

Stock Addresses A.D.M.A.

A comprehensive review of the supply outlook on raw materials, containers, etc., was presented to members of the American Drug Manufacturers Association at their annual meeting in Chicago, May 3, by Fred J. Stock, director of the Drugs and Cosmetics Section of the Chemicals Division, War Production Board. He advised his listeners that the long term prospects on glycerin are black and that the drug industry will probably have to continue to get along on 60 per cent of base period use. No further cuts are presently contemplated, he reported. Recent action by the U.S.P. and National Formulary Committees in reducing glycerin content of certain preparations was described as distinctly helpful. Some alternate materials are available, he advised, but added the warning that toxicity must be carefully checked.

No further curtailment is presently contemplated in supplies of ethyl alcohol, Mr. Stock advised, although quantities allowed for use by the drug trade will continue to be limited.

Containers continue to present a problem to the industry, he reported. The Containers Division takes the attitude that containers are to be made available for all products which the War Production Board permits to be manufactured. The type of container to be used must of war necessity be one using the least amount of critical material. Recently L-103A was issued to control inventories of containers in hands of packagers and glass manufacturers to two carloads or 60 days' requirements—whichever is the greater. This order was written to prevent the building of large inventories.

The critical shortage of kraft pulp, the speaker warned, will continue to affect the amounts and types of cartons and packages available to the drug industry over coming months. No order limiting size of cartons is at the moment anticipated, but the industry has been cautioned to take every possible voluntary step to conserve paper and paper products.

Check Army Soap Mfr.

Instructions have been issued to Canadian army units to stop making soap from waste kitchen materials. The instructions, issued on the Advice of Charles LaFerle, national salvage director, and Mrs. Phyllis Turner, administrator of oils and fats, mean that waste fats are to be disposed of to recognized firms engaged in processing fats for the manufacture of glycerine. Army establishments are without the equipment or trained personnel needed to extract glycerine in the process of soap manufacture, salvage officials said.

◆

Rule on Export Soap Sale

The question of exemption from quota restrictions of sales of soap for export made through jobbers has been raised in a recent inquiry directed to T. A. Barber, administrator of FDO-42. In a letter to the Association of American Soap and Glycerine Producers Mr. Barber advises that "Sales made to jobbers who have obtained an export license as covered by paragraph (b)(5)(iv) of FDO-42 are quota exempt. However, the manufacturer of such soap should obtain a statement from the jobber that the soap has been sold for export as per the provisions of paragraph (b)(5)(iv)". It should be noted that the exemption contained in Section (b)(5)(iv) extends to exports to Canada.

◆

New "E" Award to Hooker

The Hooker Electrochemical Company has been awarded the White Star to be added to the Army Navy "E" Flag which they received on September 8th, 1942. Announcement of the second award was made by Under Secretary of War, Robert P. Patterson in a letter addressed to the employees of the company. The award is made for continuous, meritorious services on the production front.

◆

Sells Cleaning Supply Business

Lewis National Supply Corp., Cambridge, Mass., has taken over the laundry, dry cleaning supply and equipment business of The Alden Speare's Sons Co.

Waste Fat Collections Gain

Collection of waste kitchen fats reached a new high mark of 7,312,617 pounds during March, the Salvage Division of WPB announced early last month. National collections continue to climb in spite of the effects of the meat and fat rationing programs. In spite of the gains, however, the country is still recovering only 43.9 per cent of the national quota. Florida was the first state to reach and exceed its monthly quota, while Nevada and Tennessee are next in line. Total monthly collections since the campaign started follow:

August	3,016,338
September	3,812,728
October	4,821,160
November	4,718,155
December	5,098,846
January	5,986,023
February	6,972,029
March	7,312,617
Total	41,737,896

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Require Price Data from Soapers

Manufacturers of liquid shampoos and packaged shaving soaps must file with OPA by June 25 full data on price lists, discounts, allowances, suggested retail prices, etc., under OPA's maximum price regulation 393 covering cosmetics. The order exempts such products from cosmetic status, but provides that price data be submitted by manufacturers of packaged shaving soaps and liquid shampoos in order that they may be in position to utilize the provisions of the regulation for pricing new or changed products. While the application of the automatic pricing provisions of the regulation is to new products, changed sizes, products in new containers, Christmas gift combinations, etc., the OPA needs for comparison complete data on existing products and prices as required by the regulation.

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"E" To R. A. Jones & Co.

R. A. Jones & Co., Cincinnati, manufacturers of soap machinery and war products, received the joint Army-Navy "E" Award, May 14, at Covington, Kentucky. The presentation to the employees took place at the recreation field. These ceremonies were followed by a buffet supper.

THE VOICE OF *Democracy*

To many people the voice of Niagara Falls is like the voice of America herself speaking—the voice of a strong, steadfast nation carrying a thunderous message of freedom and opportunity to the world.

Today, like the timeless roar of Niagara, the voice of America sounds strong and clear above the din of war and the shrill notes of false ideologies. America has become, as never before, the nation that offers hope and courage to men and women in slavery. For the ways in which America has grown to greatness are the ways by which other nations may grow and keep their freedom intact. And America is fighting not only for herself but for the millions who seek the same goals. The roar of her factories has sounded the note of Victory, and her ideals are setting the course of progress for generations to come. As we prepare for the new age that will emerge from the war, the responsibility for peacetime leadership will fall on the shoulders of an America that has learned to know her own strength and appreciate the power of her traditions.

We who work within sight and sound of Niagara Falls are devoting every ounce of our energies and facilities to speeding the flow of chemicals for Victory.

CAUSTIC POTASH · CAUSTIC SODA
PARA · CARBONATE OF POTASH
LIQUID CHLORINE

FROM THE ORIGINAL BY JOE JONES . . . IN NIAGARA ALKALI COMPANY'S COLLECTION OF PAINTINGS OF NIAGARA FALLS

Niagara ALKALI COMPANY
60 EAST 42nd STREET, NEW YORK, N. Y.

An Essential Part Of America's Great Chemical Enterprise

Fix Price Ceilings on Soaps

PRICE ceilings on sales of household soaps and cleansers by manufacturers, wholesalers and retail food stores were fixed by the OPA by issuance, May 14, of two new orders, MPR-390 and MPR-391, which went into operation May 24. The new orders apply to "any soap, soap product, soapless detergent, or cleanser of a type customarily sold to household consumers." MPR-391, which covers sales by wholesalers and manufacturers, fixes dollars and cents ceilings before cash discounts for carload quantities of the most widely distributed brands. For lcl quantities it is provided that ceilings may be increased by a sum equal to the seller's differential for such quanties in effect January, 1943.

Ceilings for products not specifically listed are the highest sales prices charged in January, 1943. Cash and quantity discounts in effect during that month, which were most favorable to the buyer, must be continued.

The order also fixes specific ceilings on sales by wholesalers to retail food stores, with different ceilings applying for service sales and those made f.o.b. seller's warehouse. Instructions are also included in the order for pricing sales of unlisted products, sales by manufacturer's branches, and for remote zone deliveries.

MPR-390 fixes ceilings on sales by retail food stores, but does not apply to sales by drug stores, dry goods stores, 5 and 10 cent stores and mobile retail units. Specific ceilings are fixed for the most widely distributed brands, with a variable price schedule depending on the annual gross sales volume of the particular type of store. A special formula is provided for arriving at the correct price of unlisted brands, depending on kind of soap and class of store.

◆

Salesmen's Golf Schedule

Schedule of the four golf tournaments of the Salesmen's Association of the American Chemical Industry has just been released. Sites for the season's tournaments were chosen for central location and proximity to transportation systems. On June 8, the first meeting will be held at Garden City Country Club, Garden City, L. I., N. Y., the second is at Bonnie Briar Country Club, Larchmont, N. Y., the third, August 12, at Forest Hills Field Club, Bloomfield, N. J., and the final is at Pomonok Country Club, Flushing, N. Y.

◆

New Soapless Detergent

A new soapless detergent, "Alconol," manufactured by Standard Scientific Supply Corp., New York, has just been introduced. "Alconol" is claimed to produce an "abundant lather in water of any degree of hardness without the formation of insoluble calcium soap."

Hold TGA War Conference

THE whole range of topics—standardization, containers, closures, labeling, raw material supplies and pricing—were gone over in complete detail at the recent eighth annual convention of the Toilet Goods Association, Inc., meeting at the Hotel Waldorf-Astoria, New York, May 12-13. At the meeting the following officers were elected: Herman L. Brooks, head of Coty, Inc., president; (Mr. Brooks was re-elected to the post he has filled for the past eight years); vice-presidents, Paul H. Douglas, Bourjois, Inc., William M. Bristol Jr., Bristol-Myers Co.; and H. P. Willats, Colonial Dames; treasurer, Paul F. Vallee of Roger & Gallet; secretary, Joseph A. Danilek of Lehn & Fink; executive secretary, Stephen L. Mayham.

One of the highlights of the convention was an address by C. A. Willard, deputy chief of the drugs and cosmetics section, chemicals branch, WPB. Mr. Willard spoke on "The War Production Board's Activities and Program for the Toilet Goods Industry." In his talk, he pointed out that the cosmetic industry has gone a long way in adjusting itself to war conditions and predicted that it does not appear likely that another horizontal production cut is in prospect. However, he did warn against the possibility of maintaining the present rate of production in the face of limitations on raw materials and unit and pound sizes. Mr. Willard urged buying of raw materials from near-by sources and decentralization of production facilities to reduce shipping distances. In discussing the whole bothersome problem of containers and closures, the WPB spokesman advised a study of the melamine resin group as possible substitute materials for other less easily available resinous materials. He concluded with a discussion of the glycerine situation, especially as regards substitutes.

A voluntary program of packaging simplification was outlined by W. E. Braithwaite of the division of simplification practice of the National Bureau of Standards. In his talk the need for eliminating non-essential sizes and varieties was stressed.

Maximum Price Regulation 393—the "automatic" pricing order was explained by John J. Toohy, head of Section C of the chemicals and drug branch of the OPA.

Pointing out that the "Little Steel" wage formula, is still in effect, Robert Abelow of the War Labor Board said that the board intends to enforce it until told to do otherwise by a higher power.

More than 700 persons attended the convention—a new record. The membership of the association is now 303, according to H. L. Brooks, president, of which there are 216 active members and 87 associate members

Maintain the quality of your soap odors

Write for the complete list of available Du Pont Aromatics. Among the many recommended for soap, and now available, are the following:

ALPINE VIOLET (CYLAMEN ALDEHYDE)
AMYL SALICYLATE
ANISIC ALDEHYDE (AUBEPINE)
BENZYL ACETATE
CINNAMIC ALDEHYDE
DIMETHYL HYDROQUINONE
HYACYLENE S
INDOLE
ISO AMYL BENZYL ETHER
ISOBORNEOL
ISOBORNYL ACETATE
METHYL ANTHRANILATE
METHYL RHODIONE AND RHODIONE
MUSK XYLOL, AMBRETTE, KETONE
TERPINEOL
TERPINYL ACETATE
TERPINYL PROPIONATE

HOW DO the trade and the public identify your soap? By its name and wrapper, shape, size and color. Yes, and by its odor.

That's why it's so important to maintain consistent quality and continuity in your soap odors.

Despite wartime shortages, Du Pont Aromatics Chemists can help you solve this problem. They have the knowledge and the technical facilities to help you carry on the high standards of your products.

So turn to Du Pont for help on your soap perfume problems. Let our skilled chemists and perfumers adapt available supplies to your needs.

Synthetic aromatics are a product of chemistry, and Du Pont Synthetic Aromatics reflect the technical skill of all the Du Pont laboratories. E. I. du Pont de Nemours & Co. (Inc.), Aromatics Section, 40 Worth Street, New York.

DU PONT

Aromatics

Better Things for Better Living . . . *Through Chemistry*

Niles Heads Boston BIMS

M. J. Pete Niles has been elected the new chairman of the BIMS of Boston. The well-known New England manager for Fritzsche Brothers, Inc., New York, succeeds R. C. Kelly who has gone into war work. Other members of the Executive Committee chosen include S. W. Higgins of Dennison Mfg. Co., Ernest Ingham of Ingham & Co., Frank Langlois of United Drug Co., C. M. Roper of Owens-Illinois Glass Co., and Herbert Stephens of American Lithographic Co. George E. Esslinger of United Drug was chosen treasurer. The opening golf tournament of Boston BIMS will be held at the Commonwealth Country Club on June 24, only two golf days being planned for this season.

M. J. P. NILES

New Glycerine Price Order

A new order covering glycerine prices (MPR-38) was issued by OPA May 17, superseding Revised Price Schedule 38. The same maximum prices fixed in the old order are retained; however there have been important changes in definition of "converter," "carload" and "case," and in certain other parts of the order.

Pyle's Soap Representative Dies

Stephen Wilcock, Toronto, Canada, formerly representing Pyle's Soap Company, East Toronto, died suddenly at his home in Toronto, April 27. A native of Gravesend, Kent, England, he came to Canada 62 years ago to travel for Pyle's Soap Co. He was 91 years old, and the oldest member of the Commercial Travellers' Association of Ontario. His second wife survives and also a daughter, two grandsons and two granddaughters.

Oil Chemists Elect Kishlar

Lamar Kishlar, director of research for Ralston Purina Co., was elected president of the American Oil Chemists' Society at the 34th annual convention held in New Orleans, May 12 to 14. A graduate of the University of Michigan, 1917, and a naval flier in the first World War, Dr. Kishlar has been active in research work with Packard Motor Car Co., Detroit, and Wagner Electric Manufacturing Co. Since 1922 he has been associated with Ralston Purina Co.

New P&G Drug Set Up

In an effort to attain greater efficiency in the marketing of its "Drene" shampoo and "Teel" liquid dentifrice to the drug trade, Procter & Gamble Co., Cincinnati, has set up a new unit to merchandise these products. Personnel changes include the appointment of Harold R. Hall, a former vice president of Bauer and Black, as manager of the new department. C. L. Durham, in charge of P&G sales in the drug field for several years, is sales manager.

Joins Benson Process

R. E. Benson, formerly with National Aniline Division of Allied Chemical & Dye Corp., has joined the Benson Process Engineering Co., Eden, N. Y., to serve as technical director of the consulting and development laboratories and as coordinator for the associate members of the company.

Slapin Leaves Standard Synthetics

Philip Slapin, a salesman for Standard Synthetics, Inc., New York, perfuming materials, for the past year and a half, has recently left their service. The territory formerly covered by Mr. Slapin,—New York City, New Jersey, Philadelphia, Baltimore and Washington, D. C., will be taken over by Marcel Gunder, who recently joined the firm.

Drew Appoints Walter Pohl

Walter F. Pohl has just been named district engineer for the southeastern area by E. F. Drew & Co., New York, American Colloid Division. Mr. Pohl will direct the company's servicing and sales activities in Alabama, Florida, Georgia and South Carolina. He is making his headquarters at Atlanta.

WALTER F. POHL

Van Zile to Hercules

B. S. Van Zile, former head of analytical and technical service divisions of the Development and Research Department of Colgate-Palmolive-Peet Co., Jersey City, N. J., has joined Hercules Powder Co.'s experiment station, Wilmington, Delaware. He continues as secretary of the D-12 committee of the American Society for Testing Materials.

Chemists Club Elects Officers

C. R. De Long, consulting chemical engineer, New York, was elected president of the Chemists Club at the annual meeting of the organization in New York, recently. He succeeds Dr. Walter D. Landis, vice-president of American Cyanamid Co. N. C. Babcock of Carbide and Carbon Chemicals Corp., L. W. Bass of the New England Industrial Research Foundation and A. J. Weith of Bakelite Corp. were elected vice-presidents. Robert T. Baldwin was re-elected as secretary and Ira Vandewater of R. W. Greef & Co. as treasurer.

BACKGROUND VALUES . . . a PART of the product, APART from the price

Photos, top to bottom: Loading a still preparatory to distillation . . . A part of the main still room . . . The new warehouse . . . Interior of warehouse.

A NUMBER of important oils and chemicals once produced for us abroad are now being manufactured in our own American plant under the skilled supervision of our staff specialists. The new building above, with its increased laboratory, distillation and warehousing facilities as pictured, represents a timely and invaluable enlargement of existing facilities. Now, many of the costly, hard-to-get materials, formerly bought through middlemen, are being manufactured by us and sold to our customers with resultant benefits of economy, convenience and assured high quality accruing in their favor. Typically, these advantages are all a PART of Fritzsche products, APART from their price. Why not let our representative prove in dollars and cents, how they can benefit *you?*

ESSENTIAL OILS
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AROMATIC
CHEMICALS

Est. 1871

BASIC PERFUME
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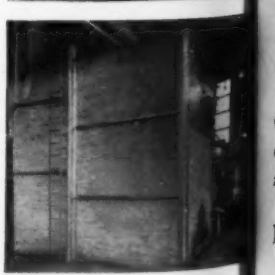
BRANCH STOCKS

BOSTON • CHICAGO LOS ANGELES ST. LOUIS TORONTO, CANADA MEXICO, D. F.

FACTORIES AT CLIFTON, N. J. AND SEILLANS (VAR) FRANCE



Photos, top to bottom: Prepar... alyst for large batch manuf... Part of the Analytical Labora... Research Laboratory . . . Bo...

Lever vs. Unemployment

A report issued early this year by Lever Bros. and Unilever Ltd. on the subject of "The Problem of Unemployment" is discussed at length in a recent issue of the *Montreal Gazette*. Contributions of the Lever organization toward a solution of the post-war social security problem include a plan for the return of employees disabled in the war. Already in effect are measures for the protection of employees on leave of absence for war service; for the provision of suitable work and the maintenance of earnings for disabled veterans; for safeguarding the health of employees. A pension plan is in operation which guarantees retirement pay, and allowances for widowed and dependent children, immediate cash payment being authorized in the case of widows. Awards are made for good service with the company and the plan includes also employee education. It covers rates of pay and employee organization and representation through (a) factory union and (b) office and supervisory staff committees.

◆

Change Glass Container Ceilings

The prices of wide-mouth glass containers sold to commercial packers have just been rolled back by the Office of Price Administration to levels that prevailed July 1, 1941. This replaces the previous ceiling levels which reflected prices of October, 1941. After August 6, 1943, manufacturers of glass containers will be subject to WPB's simplification program which is expected to restrict wide-mouth glass bottles to about 50 styles. The program is expected to result in the production of an additional 6,000,000 gross of containers within the industry's present productive capacity.

◆

Red Cross Soap Quota Cut

The Chemical Industry Division of the 1943 Red Cross War Fund has secured a total of 241 contributions, amounting to $244,907. Additional credits are expected to bring the total to around $250,000. The Soap and Cleaning Compounds group had its quota cut from $10,000 to $5,000, against which there have been 21 contributions for a total of $2,077 or 41 per cent of the revised quota.

W. E. Cotter, Union Carbide & Chemical Corp., New York, was chairman of the Chemical Industry Division. Contributions can still be made to the Fund by sending checks or money orders made out to the Red Cross in care of Mr. Cotter at 30 E. 42nd Street.

◆

Packwood Sales Mgr. Joins Navy

H. B. McInnes, former Chicago sales manager for the G. H. Packwood Mfg. Co., St. Louis, enlisted in the Navy recently and is in training for an officer's commission at a western school. Mr. McInnes is the company's second Chicago manager to enter the armed forces during the past year, his predecessor, H. J. Hoffman, having gone into the Navy last summer. Chas. E. Crooks is Mr. McInnes' successor in the Chicago office.

◆

F. J. McDonough, NYQ Head Dies

Francis J. McDonough, 54, president of New York Quinine & Chemical Works, Brooklyn, died suddenly at his home in Brooklyn, May 31. He joined New York Quinine in February, 1925, and has been with the company ever since. Up to 1925 he had been a vice-president of McKesson & Robbins, for whom he had worked since he was 12 years old. Mr. McDonough was recently elected president of the Drug & Chemical Club of New York, with which he had been associated for many years. He is survived by his widow, Mrs. Ann V. McDonough, one son, Donald, a first lieutenant in the U. S. Army; and five daughters: Mrs. Andrew J. Brennan; and four unmarried daughters: Margaret, Joan, Nancy and Rita.

◆

Open Parento Montreal Office

Compagnie Parento Ltd., Toronto, have opened an office in the Confederation Building, 1253 McGill College Ave., Montreal for the convenience of customers in that area. Francois D. Rivard, who has been associated with the essential oils industry for many years, will be in charge.

Set Drug Cosmetic Prices

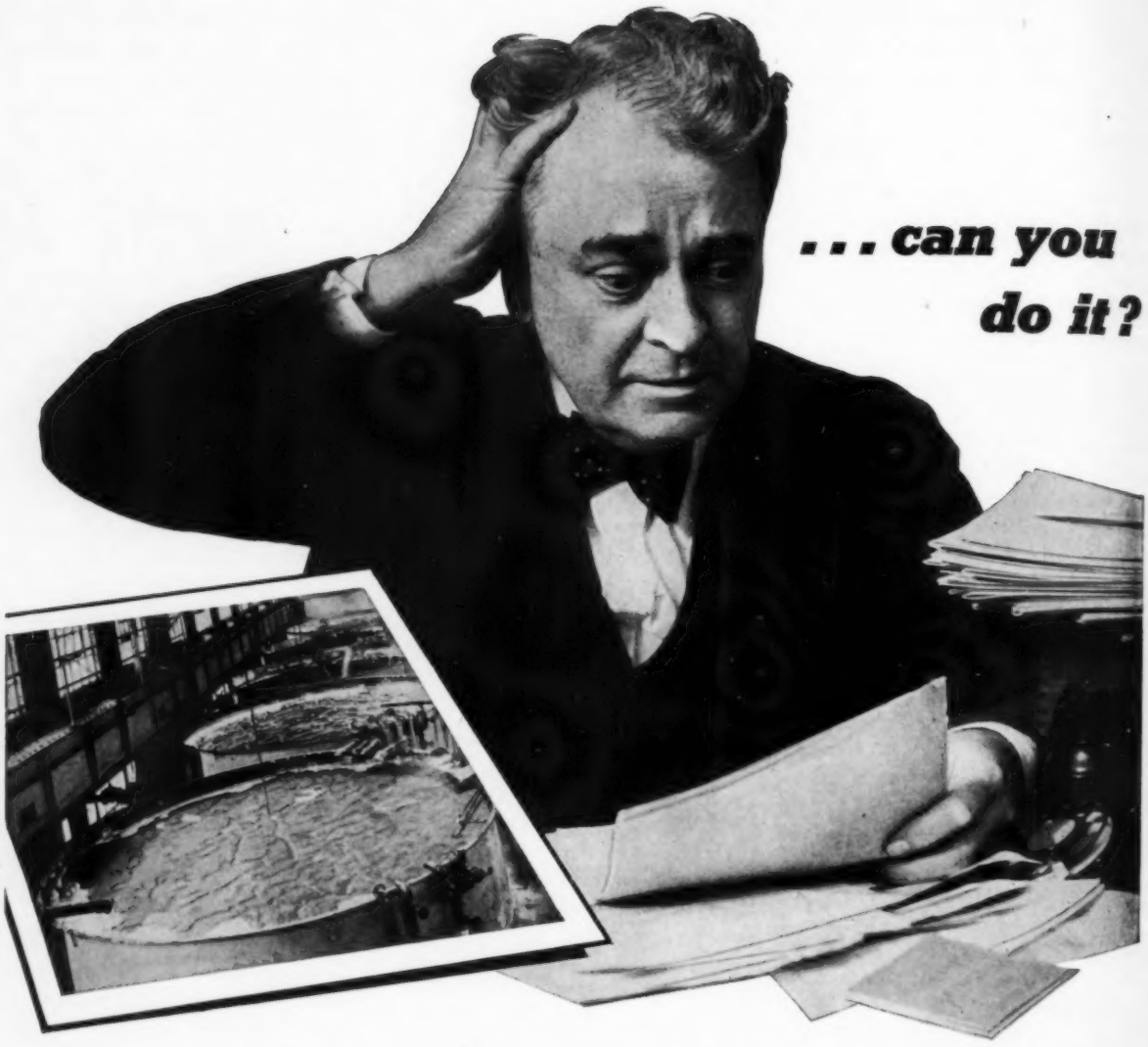
The packaged drug industry—including manufacturers, wholesalers, and retailers of proprietary medicines and pharmaceuticals—was placed under a separate price regulation, effective May 26. The new regulation Maximum Price Regulation No. 392—Packaged Drugs—is patterned to meet pricing problems resulting from wartime changes and to continue in effect the March 1942 level of prices. The regulation provides methods by which the manufacturer can readily determine maximum prices for new and changed packaged drugs with a minimum of inconvenience and delay and without the necessity of securing maximum price authorization through the issuance of individual orders for each product by the OPA.

A similar pricing regulation Maximum Price Regulation No. 393—Packaged Cosmetics—was put into effect at the same time. It covers about 200 different kinds of cosmetics with several thousand trade names. The action is part of the OPA's program of simplification and elimination of unnecessary burdens to increase the effectiveness of price control.

◆

Glass Container Output Up

Production of glass containers in 1943 can be increased by approximately 8 per cent over the 1942 level if manpower, transportation and an adequate supply of materials are available, the Glass Containers Manufacturers Industry Advisory Committee reported at a meeting with WPB officials in Washington, recently. It was estimated that 1943 production will be 13.3 billion containers if adequate supplies are available. Production in the first three months of 1943 totalled 3.1 billion containers, this in spite of fuel, carton and manpower shortages. The committee recommended that prompt action be taken in averting shortages of materials or manpower when they first appear. It said that the labor shortage had not yet caused any great loss of production in the glass container and closure industries. However, it reported the drain on experienced employees has been heavy.



PQ SILICATES OF SODA YOU SHOULD KNOW:

"N"—Popular low alkaline solution, 41° Baumé. Approximate ratio: 1:3.22.

"K"—More alkaline than "N", a 47° Baumé solution. Approximate ratio: 1:2.90.

"C"—Alkaline solution, 59.3° Baumé. Approximate ratio: 1:2.00.

SS-C-Pwd.—Anhydrous powdered sodium silicate. Ratio: 1:2.00. Slowly soluble.

Ask for Bulletin 17-1 which describes 30 PQ Silicates.

LESS FAT—JUST AS MUCH SOAP

● It's a knotty problem to meet continued demands for effective detergency while whittling down fats and oils consumption.

But soap makers already are studying formulae and trying new ways of using Silicates of Soda—PQ Silicates of Soda. In some soaps with new raw materials, it is possible to add higher percentages of silicate. In others, a different grade of silicate may improve the volume and stability of the suds.

In any case PQ Technicians are happy to discuss your problem. Let us furnish PQ Silicate of Soda samples for your own laboratory experiments.

PHILADELPHIA QUARTZ CO.

SILICATES OF SODA

125 S. THIRD STREET, PHILA., PA.

Soaps at Hospital Show

MANUFACTURERS of soaps, disinfectants, dispensers, cleaning compounds, etc., were prominently represented among exhibitors at the 14th annual Tri-State Hospital Assembly held in Chicago, May 4 to 7. One of the booths which attracted particular attention was that of Ludwig Wilson Co., Chicago distributors for "OD-30," new odorless deodorant which has received considerable newspaper publicity over the course of the past year. Eugene J. Taylor, sales manager of Wilson's institutional department was in charge of the display and was kept busy throughout the session answering questions of visitors.

Arrow Laboratories, Chicago, had a large display of their line of soaps, disinfectants and other sanitary products, presented by Wm. F. Reining, sales manager and his assistants. One new item, recently introduced, was "Lanco 706," a non-phenolic germicide, antiseptic and disinfectant, while other products shown included liquid, surgical and scrub soaps, cresol compound, pine oil disinfectant, jelly soaps using soya, linseed or coconut oils, pine crystals, fly spray, bed bug liquid, dishwashing compounds and self-polishing waxes.

Huntington Laboratories, Huntington, Ind., featured "Baby-San," liquid castile baby soap, and "Germa-Medica," a liquid soap for the surgical scrub-up. M. W. Levernier, manager, hospital department, had charge.

J. B. Ford Co., Wyandotte, Mich., promoted their "F-100," powdered detergent for cleaning floors and walls; also "Wyandotte No. 97," a new paste cleaner, as well as other items in the company's line of maintenance products. H. A. Rightmire, sales manager for the detergent division, came down from the Michigan factory to assist J. L. Sullivan, E. E. Tompkins and J. Hyde of the Chicago office.

"Septisol" soap and dispensers, the latter with pedal control, were presented by Vestal Chemical Labs., thirty-year-old St. Louis, Mo , sanitary products concern. "Staph-ene," a disinfectant, deodorant and cleaner, which, it is claimed, leaves no odor, was also featured, along with floor-cleaning and finishing products, brushes, mops and other maintenance accessories. F. C. Freesmeier, sales manager, St. Louis, had charge.

Midland Laboratories, Inc., Dubuque, Ia., presented their newly improved hospital germicide, "Neo Germolyptus," which Walter Brown, manager of the hospital department, stated, can now be used wherever U.S.P. Cresol was formerly indicated. The company's "Midland" line of liquid surgical soaps, basic soaps and nursery soaps was also shown.

Hild Floor Machine Co., Chicago, demonstrated their noiseless floor cleaning equipment, with Fred Hild, company president, and C. D. Myers, at the controls.

Refinite Corp., Omaha, was likewise on hand, with a demonstration of their zeolite water softening system.

Chicago Golf Plans Uncertain

Food rationing and transportation difficulties have complicated plans of the Chicago Drug & Chemical Association and the Chicago Soap, Perfumery & Extract Association for their monthly golf tournaments during the summer. A tentative schedule calls for the first game late this month (June), but the one country club willing to consider booking the event, had insisted on a ten-day cancellation clause in the contract which may force last minute changes. Similar difficulties can be anticipated each succeeding month, so that the future for the Chicago niblick and mashie boys is decidedly uncertain. Included also, in their gloomy forecast is the possibility that the annual competition with the Detroit, Mich., Drug and Allied Industry Club, for the Fort Dearborn trophy late in the fall may have to be abandoned. Joseph A. Gauer of Fritzsche Bros., and Martin B. Vance of Givaudan-Delawanna, Inc., have the job of struggling with these headaches, as co-chairmen of the Golf Auxiliary. Mr. Gauer represents the Drug & Chemical Association, and Mr. Vance the Soap, Perfumery & Extract Association.

Amend Alkali Zone Plan

Rearrangement and reduction in the number of caustic soda shipping zones by amendment to General Transportation Order T-1 was announced recently by the WPB. The amendment reduces the number of zones from thirteen to eight. New "areas" were set up into which caustic soda shipments might be made from specified zones without authorization.

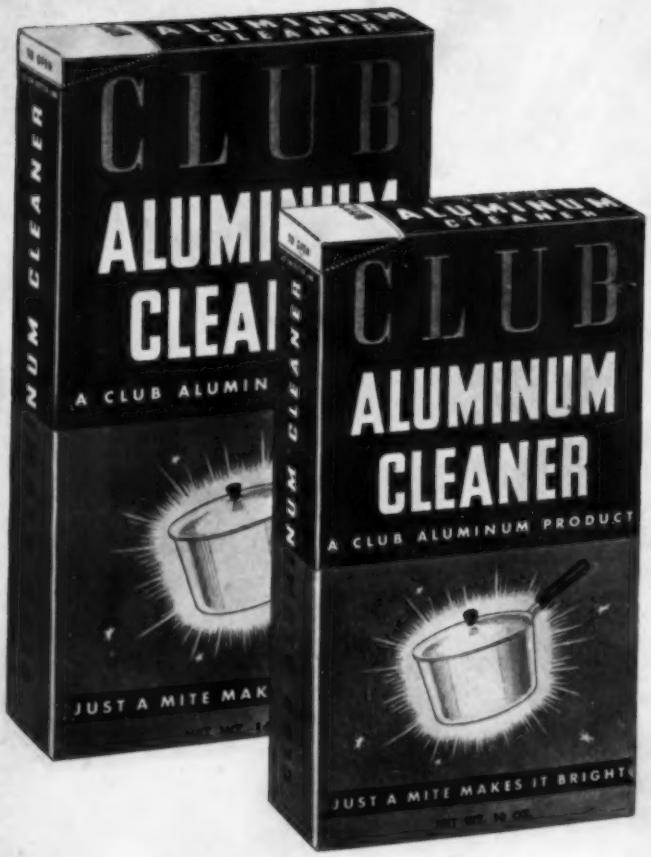
Originally, the transportation order established controls over the use of steel tank cars and tank trucks for delivery of a long list of chemicals. Only shippers of caustic soda are affected by the recent amendment. Beginning May 1, these shippers are permitted to make delivery arrangements on caustic soda within the various zones contained in the order without permit. In the event a shipper desires to make shipments beyond these zones he is required to apply to the WPB on Form PD-782 for exemption from the order. Reduction in the number of zones is expected to permit more flexible use of tank cars and trucks and to avoid any delay in the production of chlorine.

Ask Points for Salvaged Fat

As a means to stimulate the salvage of household fats and greases, the Amalgamated Meat Cutters & Butcher Workmen's union has asked Price Administrator Prentice Brown to allow an exchange of sixteen red ration points, good for meats, for each pound of grease brought to meat markets by housewives. The additional sixteen points, union officials contend in their communication to OPA Administrator Brown, would enable meat shoppers to purchase more of the heavier cuts of meat and in turn. provide more fats and waste matter. Copies of the letter were circulated among the Union's 125,000 members.

New Products

. . .



Club Aluminum Products Co., Chicago, makers of club aluminum ware, have just introduced a new "Club Aluminum Cleaner." Packaged in two sizes: 14 and 10 ounces, the new cleaner, in powder form, pours out from a handy opening on the top corner of the box.

In the interests of metal conservation, Clifton Chemical Co., Inc., New York, has switched packing its liquid and paste shampoo from metal to glass. Gallon jugs coming in individual containers, four to a carton, have been found to work out very well in packing and displaying the product.

Success through novel packaging effects has been achieved with these men's toiletries from the "Seaforth" line of Alfred D. McKelvy Co., New York. Latest addition to the whiskey jugged line is a liquid shaving soap.

and Packages

One of two new "Mountain Heather" scented bath accessories gift kits just introduced by Daggett & Ramsdell, New York. Coming in a decorative heather-pink box one contains a bottle of cologne, tall shaker of talc and a large pink cake of soap. The other kit has, in addition to the cologne and soap, a large box of "Mountain Heather" bath powder complete with a pink taffeta-backed puff. The latter retails for $2.50, the former for $2.

V-Air, made by Vapor Chemical Corp., New York, is a new deodorant that can be used in the home as well as air conditioning systems to neutralize unpleasant odors. The home package, as featured here, is an eight-ounce amber bottle with a round cotton wick for evaporation of the liquid. V-Air was formerly known as O.N. 17.

New Gourielli compounds for men's skin, hair and bath include after-shave lotion, "Emulsion" (skin protector), hair groom, scalp lotion, shaving soap, and bathing soap. Apothecary jars and soap bear the Gourielli crest.

CROWN CAN *has a real interest in that Baby!*

Recognize it? If you don't... the Japs do... to their sorrow.

It's a Vought-Sikorsky (Corsair) ...fastest fighting plane of the United States Navy.

The skill and craftsmanship that is producing Crown Cans is also employed in making cowlings for the engine of this Vought-Sikorsky fighter.

And here's what Mr. J. M. Barr, Assistant General Manager, of Vought-Sikorsky Aircraft, says about how well Crown is doing its part of the job:

"Mr. Schramm says the fit is excellent and the workmanship leaves nothing to be desired... It is the desire of this division to take pride in the work of its subcontractors and we certainly feel justified in the case of the Crown Can Company."

"The workmanship leaves nothing to be desired." Thank you, Mr. Barr!

But that's an old story to those who have known for years that the workmanship which goes into Crown Cans was always of that same standard... just one more example of how Crown Can is serving the Nation.

CROWN CAN COMPANY, PHILADELPHIA • NEW YORK • *Division of Crown Cork & Seal Co.* • *Baltimore, Md.*

★ ★ ★ CROWN CAN ★ ★

BIDS AWARDS

FDA Award To Wrisley

A bid of 14.86c a pound on 50,000 pounds of toilet soap by Allen B. Wrisley Distributing Co., Chicago, has been accepted in a special purchase by the Food Distribution Agency of the Department of Agriculture, Washington, D. C.

Soap Award To Armour

The New York Navy Purchasing Office, New York, has made an award to Armour & Co., Chicago, for supply 1,008,533 12-ounce bars of ordinary laundry soap at 4.435c, covered in a recent opening for miscellaneous supplies.

Low Navy Purchasing Bids

In recent openings by the New York Navy Purchasing Office, New York, for miscellaneous supplies, the following low bids were received: Twin City Shellac Co., Brooklyn, 90c on 55 gallons of liquid wax floor finish; DuBois Co., Cincinnati, 33c on 2,750 gallons of non-inflammable and non-toxic degreasing liquid compounds; Crystal Soap & Chemical Co., Philadelphia, bids ranging from 13.15c to 14.4c on a quantity of 60,000 57-gm jars of powder liniment soap.

Low Post Office Bids

The following low bids were received in recent openings by the Post Office Department, Washington, D. C., for miscellaneous supplies: Automobile soap; item 1, 25 containers of approximately 10 pounds each, Motor State Oil & Grease Co., Jackson, Mich., 8.5c; Item 2, 40 containers of approximately 50 pounds each, Pacific Chemical Co., Los Angeles, 7.3c; Item 3, 9 half barrels of approximately 250 pounds each and Item 4, 22 barrels of approximately 500 pounds each, both by Alco Oil & Chemical Co., Philadelphia, 6c and 5.25c respectively. 16,000 gallons of general purpose wax, solvent type, liquid, Oil Specialties & Refining Co., Brooklyn, 63.48c. General purpose paste wax; item a, 3,000 pounds, item b, 5,000 pounds, Fuld Brothers & Co., Baltimore, item a 12c, item b, 11c.

Crystal Cleaner Bid Low

Crystal Soap & Chemical Co., Philadelphia, submitted a low bid of 44c on an unspecified amount of cleaner in a recent opening for miscellaneous supplies by the Washington Navy Yard.

Low Boiler Compound Bids

Low bidder on two lots of 700,000 pounds of boiler compound, part to be delivered to Clearfield naval base, the balance, f.o.b. works was Lavo Co. of America, Milwaukee, with bids of 5.49c and 4.24c. This was in response to a recent opening by the Navy Department Bureau of Supplies and Accounts, Washington, D. C.

Insecticide Sprayer Bids

Among the bids received in a recent opening of the Navy Department Bureau of Supplies and Accounts, Washington, D. C., for 300 electric insecticide sprayers to be delivered to Norfolk and 19 to be delivered to Oakland were those of: Breuer Electric Manufacturing Co., Chicago, $19.50 each on both deliveries; Tanglefoot Co., Grand Rapids, Mich., $14.98; and West Disinfecting Co., Long Island City, N. Y., $19.20.

Federal Works Bids

The following bids were received in recent openings by the Federal Works Agency, Public Buildings Administration, Washington, D. C., for miscellaneous supplies: red squill (quantity unspecified) American Fluoride Corp., New York, $257.25 (low), S. B. Penick & Co., New York, $258, Factory & Yard Supply Co., New York, $285, Industrial Distributors, New York, $306; Soap dispenser (unspecified) J. M. Katz, New York, $500, only bidder; Toilet soap (quantity unspecified) Independent Towel Supply Co., New York, $350, only bidder.

Low Agriculture Derris Bids

In a recent opening for miscellaneous supplies by the Department of Agriculture, Washington, D. C., the following low bids were received: Item 1, 100 lbs. of ground derris, Agicide Laboratories, Racine, Wis., 26c; Item 2, 50 lbs. of ground derris, and Item 3, 50 lbs. of ground derris, S. B. Penick & Co., New York, 40c on item 2 and 41c on item 3.

Stevens Low On P.O. Soap

Stevens Soap Corp., Brooklyn, entered the low bid of 1.77c on 60,000 pounds of soap scouring compound in a recent opening of Post Office Department, Washington, D. C.

Phila. Navy Awards

The following bids and awards have been announced by the Philadelphia Navy Yard, Philadelphia, in recent openings for miscellaneous supplies: 3,500 pounds of yellow beeswax, E. A. Bromund, New York, $1,93.75 (accepted); 20,000 pounds of rust preventive compound, Presstite Engineering Corp., St. Louis, $2,200.

Dinner for P. C. Magnus

Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., essential oil house, New York, was guest of honor at a dinner celebrating the 95th anniversary of the East River Savings Bank at the Union League Club, New York, May 27. The dinner was tendered Mr. Magnus in recognition of his twenty-five years as a member of the board of trustees of the bank.

Gus Bayer Dies

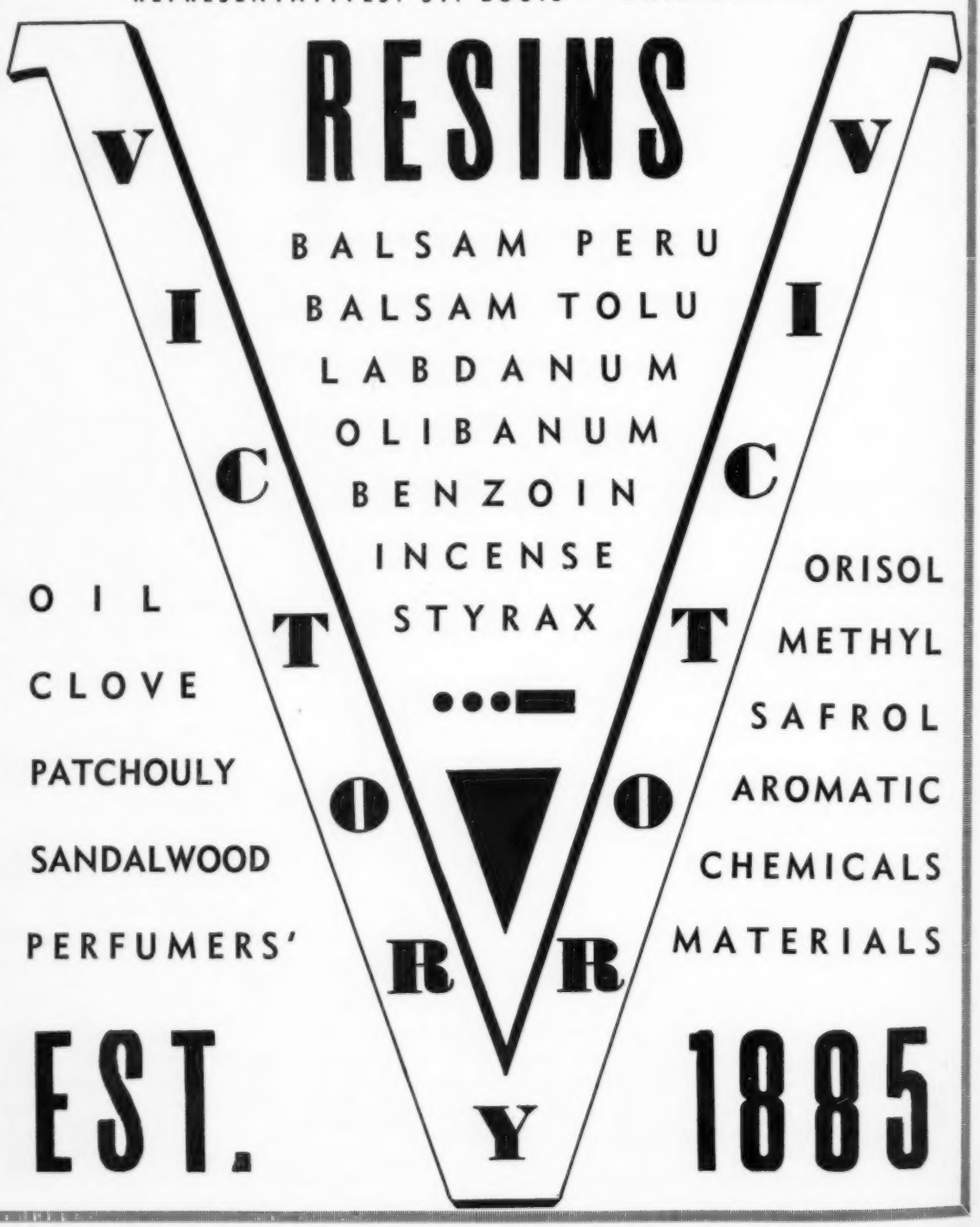
Gustave Bayer, office manager of the New York offices of Merck & Co., and a veteran of more than forty years with the company, died May 17 at Lawrence Hospital, Bronxville, N. Y. He was sixty-six years old.

GEORGE LUEDERS & CO.

427-429 WASHINGTON STREET, NEW YORK

CHICAGO • SAN FRANCISCO • MONTREAL

REPRESENTATIVES: ST. LOUIS • PHILADELPHIA



TRADE MARKS

The following trade-marks were published in the May issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks

DEN-TEX—This in bold, upper case letters for compounds for removing paint, lacquer and similar material from the hands. Filed Jan. 22, 1943 by Denn.s Chemical Co., St. Louis. Claims use since Aug. 15, 1942.

HUM — This in upper case, shadow lettering for antiseptic home cleaning compound in powder form. Filed Jan. 26, 1943 by John W. Holmes, doing business as Wilmer Products, Carnegie, Pa. Claims use since Nov. 20, 1942.

BRACE — This in upper case reverse lettering on a label showing a man's head and shirt front, for a toilet preparation for cleansing scalp and hair. Filed Oct. 10, 1942 by McKesson & Robbins, Inc., New York. Claims use since Sept. 17, 1937.

CREV-EX—This in bold upper case letters for a liquid for the treatment of athlete's foot. Filed Nov. 14, 1942 by Ralph Padalino, Elizabeth, N. J. Claims use since June 14, 1942.

THIRSTY-SAK — This in open lettering for a device containing chemicals for use in absorbing moisture and as a deodorizer. Filed Jan. 6, 1943 by Puritan Chemical Co., Atlanta. Claims use since Dec. 1, 1942.

GAY—This in unjoined script letters for toilet soap. Filed Feb. 19, 1942 by Sears, Roebuck and Co., Chicago. Claims use since July, 1940.

MOUSEED—This in bold, upper and lower case letters for a preparation for the extermination of rodents. Filed Mar. 11, 1943 by W. G. Reardon Laboratories, Inc., Port Chester, N. Y. Claims use since June 26, 1925.

ERMINE — This in bold script lettering for a liquid cleaner, polishes and a dye and dressing preparation for fabric and leather articles. Filed Dec. 26, 1942 by The Nu-Di Products Co., Cleveland. Claims use since Dec. 1, 1934.

VEGARINSE—This in upper and lower case bold lettering for comminuted chemical composition to be dissolved in water for washing fruits and vegetables. Filed Feb. 22, 1943 by Ray A. Washburn, doing business as The VegaRinse Co., Chicago. Claims use since Feb. 12, 1943.

LISTERINE—This in bold upper case lettering bisecting a fanciful oval design for a creamed or semi-liquid tooth-paste. Filed Mar. 1, 1943 by Lambert Pharmacal Co. Claims use since Dec. 30, 1942.

SOFENATE—This in bold upper case lettering for a disinfectant. Filed Mar. 16, 1943 by Dr. Hess & Clark, Inc., Ashland, O. Claims use since February 24, 1943.

KEN-GLO—This in bold upper case lettering for a cleaner, wax and polish for automobiles, and lacquered and enameled finishes. Filed June 8, 1942 by Ken-Nite Co., Detroit. Claims use since Feb. 17, 1938.

MOTHCIUM—This in bold upper and lower case lettering for mothproofing materials to be used in paints and other coating compositions. Filed Mar. 19, 1943 by The Mothtone Co., Needham, Mass. Claims use since Mar. 13, 1943.

COLDSPRAY—This in bold upper case lettering for soap. Filed Feb. 26, 1942 by Beach Soap Co., Lawrence, Mass. Claims use since May 5, 1937.

WHITE LABEL—This in bold upper case lettering for soap. Filed Feb. 26, 1942 by Beach Soap Co., Lawrence, Mass. Claims use since Jan. 15, 1934.

SOL-SPEEDI-DRI—This in upper case lettering for cleaning material. Filed Dec. 17, 1942 by Charles M. Addis, doing business as Refiners Lubricating Co., New York. Claims use since Sept. 28, 1942.

ROMAY—This in bold upper case lettering for cleaner for painted walls, woodwork, linoleum, tile, porcelain, venetian blinds, refrigerators, stoves and furniture. Filed Jan. 4, 1943 by Roman Cleanser Co., Detroit. Claims use since Dec. 1, 1942.

WINGS — This in bold upper case lettering for shoe dressings and shoe polishes. Filed Feb. 17, 1943 by Evangeline Products, Inc., Brooklyn. Claims use since Jan. 14, 1943.

E-JECT-O—This in bold upper case lettering for chemical drain pipe solvent. Filed Mar. 27, 1943 by United Gilsonite Laboratories, Scranton, Pa. Claims use since June 1, 1933.

Trade Marks Granted

401,125. Rodenticide. Filed by W. H. Plunkett, doing business as Plunkett Chemical Co., Chicago, Feb. 3, 1942. Serial No. 450,692. Published April 7, 1942. Class 6.

401,143. Cleaning and polishing preparation for furniture, automobiles, and painted and enameled surfaces. Filed by Mary Bundzik, Johnstown, Pa., Aug. 27, 1942. Serial No. 455,131. Published Feb. 16, 1943. Class 16.

401,156. Germicides, disinfectants and deodorizers. Filed by Stanley Home Products, Inc., Westfield, Mass., Oct. 10, 1942. Serial No. 456,132. Published Feb. 16, 1943. Class 6.

401,181. Saponaceous compounds for cleaning the hands, shaving creams, sticks and powders, etc. Filed by Nicholas W. Orloff, New York, Nov. 25, 1942. Serial No. 457,044. Published Feb. 16, 1943. Class 4.

401,205. Roach poison. Filed by McCormick & Co., Baltimore, Dec. 18, 1942. Serial No. 457,501. Published Feb. 16, 1943. Class 6.

401,238. Soap. Filed by Roth Appliance Distributors, Inc., Milwaukee, June 27, 1942. Serial No. 453,927. Published Feb. 23, 1943. Class 4.

401,313. Antiseptic dressing for minor cuts or insect bites. Filed

CROSBY
THE MARK OF QUALITY

PALE WOOD

ROSINS

Crosby WG grade has proved especially suitable for high grade soaps.

Other grades also available from I to X.

Exceptionally clean and uniform.

Produced under rigid technical control twenty-four hours a day.

CROSBY NAVAL STORES, INC.
PICAYUNE, MISSISSIPPI

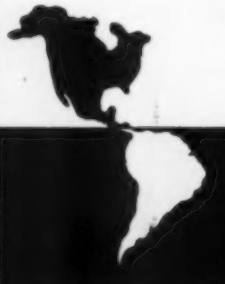
GUAIACWOOD OIL

CONCRETE

The increasing demand for our oil Guaiacwood Concrete has not been due entirely to its body building and fixative properties, but more to its ability to produce an odor effect of naturalness to a soap compound containing mostly aromatic chemicals.

We are importing direct from a source which produces and ships a pure oil of exceptionally light color.

SAMPLES AND PRICES SUBMITTED UPON APPLICATION



BUSH PAN-AMERICA, LTD.
136 LIBERTY STREET, NEW YORK CABLE: ARROBUSH

by Roch D. Kawerk, doing business as Victory Chemical Co., Birmingham, Ala., March 15, 1941. Serial No. 441,577. Published June 17, 1941. Class 6.

401,327. Bubble bath preparation. Filed by Prince Matchabelli, New York, June 2, 1942. Serial No. 453,424. Published July 28, 1942. Class 6.

401,338. Metal degreasing and metal washing compounds. Filed by Herbert Van Straaten, doing business as Van Straaten Chemical Co., Chicago, Oct. 22, 1942. Serial No. 456,348. Published February 16, 1943. Class 6.

401,343. Dental Cream. Filed by Colgate-Palmolive-Peet Co., Jersey City, N. J., Oct. 24, 1942. Serial No. 456,680. Published March 2, 1943. Class 6.

401,370. Agricultural insecticide containing a dinitro-phenol compound as the active ingredient. Filed by the Dow Chemical Co., Midland, Mich., Dec. 26, 1942. Serial No. 457,604. Published Feb. 23, 1943. Class 6.

401,376. Packaged germicide for control of pulp and paper mill slimes. Filed by The Hamilton Laboratories, Inc., Hamilton, O., Dec. 31, 1942. Serial No. 457,679. Published Feb. 16, 1943. Class 6.

401,382. Germicidal compositions. Filed by Wallace & Tiernan Products, Inc., Belleville, N. J., Jan. 7, 1943. Serial No. 457,799. Published March 2, 1943. Class 6.

401,379. Starch tablets. Filed by Blue Suds Co., Detroit, Jan. 7, 1943. Serial No. 457,716. Published March 2, 1943. Class 6.

401,416. Soap. Filed by Colgate-Palmolive-Peet Co., Jersey City, N. J., March 17, 1942. Serial No. 451,671. Published March 8, 1943. Class 4.

401,417. Washing preparations for automobiles, truck bodies, and airplanes. Filed by Lee H. Thompson, doing business as Southern Supply Co., Pasadena, Calif., March 18, 1942. Serial No. 451,733. Published March 9, 1943. Class 4.

401,419. Mineral oils for use in agriculture and horticulture for the control of insects and fungi. Filed by Standard Oil Co. of California, Wilmington, Del., May 7, 1942. Serial No. 452,875. Published July 21, 1942. Class 6.

401,454. Self polishing floor wax. Filed by Claire Manufacturing Co., Chicago, Dec. 8, 1942. Serial No. 457,272. Published March 9, 1943. Class 16.

401,474. Floor dressing. Filed by Masury-Young Co., Boston, Jan. 12, 1943. Serial No. 457,879. Published March 8, 1943. Class 32.

Chicago Group Aids Salvage

Formation of a committee of Chicago chemists and scientists who hope to uncover new sources of industrial fats and greases to salvage for war needs was announced last month by War Production Board officials in Chicago. Included on the committee are Dr. F. W. Mohlmann, director of laboratories, sanitary district of Chicago as chairman; A. J. Belaskas, Wilson & Co.; Emanuel Hurwitz, sanitary district of Chicago; James E. Maroney, American Meat Institute; E. N. Mortenson, Swift & Co.; DeWitt Nelson, Armour & Co.; D. V. Stingley, Armour & Co.; and J. W. Pagnucco, Procter & Gamble Co. The committee will work with the WPB and the Chicago section of the American Chemical society in an effort to promote improved and new methods of fat collection among such industries as dairies, meat packaging, and margarine processing. The national goal for 1943 has been set at 500,000,000 pounds and the country's 40,000 chemists are being asked to help in the drive which is headquartered in Chicago. The national goal can only be achieved if new fats and oils sources are found in hitherto unknown industries, the WPB stated.

P&G Answers FTC on Teel

Procter & Gamble Co., Cincinnati, has issued a formal reply to the Federal Trade Commission complaint against "Teel" advertising. The FTC charged the dentifrice's advertising with misrepresentation and unfair disparagement of competitive tooth powders and pastes. P&G maintains that the statements in "Teel" advertising are based on scientific research.

Club Aluminum Market Cleaner

Club Aluminum Cleaner, first of a new line of household cleaning specialties to be manufactured by the Club Aluminum Products Co., Chicago, was recently placed on the market in Chicago department stores. Packaged in two sizes, 10 and 14 ounces, the product retails for 23 cents and 30 cents. Atlas-Boxmakers, Inc., Chicago, produced the package. No advertising has yet been done, a company spokesman said, but when stocks have been built up, sales will be expanded, area by area, until national distribution is attained. Outlets will be sought in food, drug, dime and other stores, as well as the usual hardware and household goods stores where the company's well-known kitchen utensils have been sold.

Other items in the company's new line which were said to be "about ready" for marketing, include a liquid cream silver polish, a cream furniture polish, a "scratch concealing" liquid furniture polish and a rug and upholstery cleaner. A sixth general, all-purpose household cleaner is also contemplated for later production. Development of the new line has been under way for about a year, it was stated. All products will be manufactured in the company's own plant at 1250 Fullerton Ave., Chicago. The project, said the company spokesman, is not a temporary "war time" venture, but will be intensively developed henceforth, along with the concern's aluminum products. (See photo p. 46)

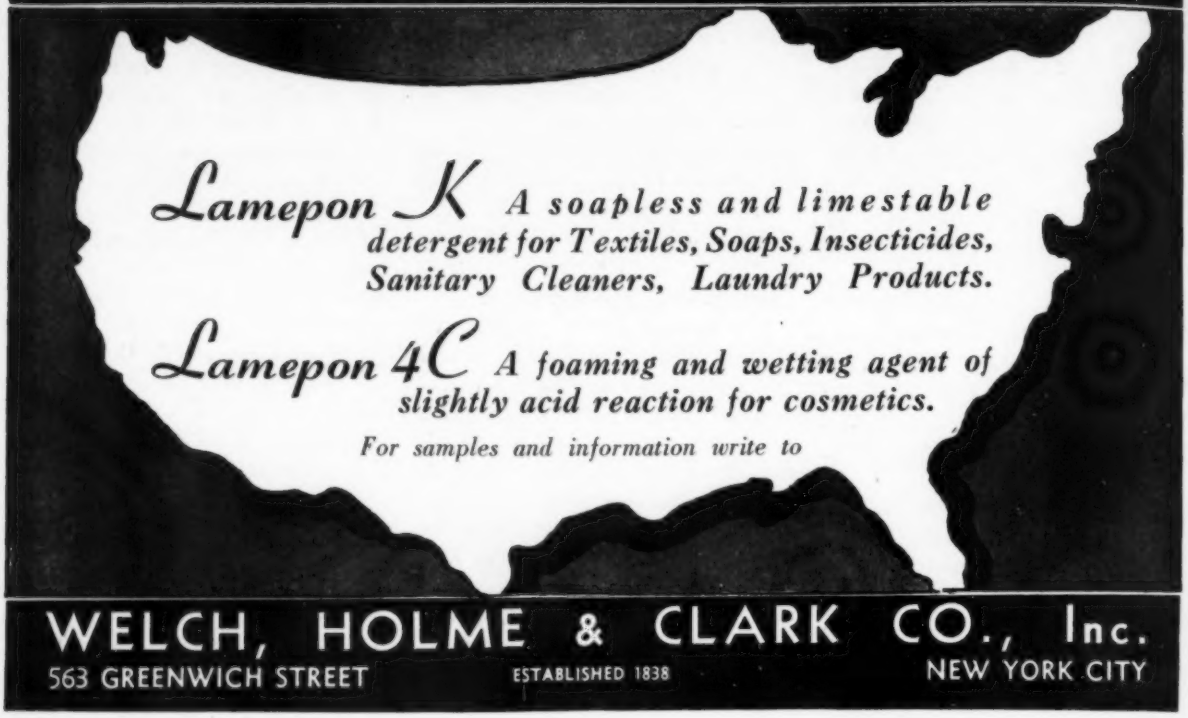
Plan Bans U. S. Soap

Under a so-called "decentralization plan," Bolivia, Chile, Colombia and Venezuela will not issue import recommendations except in unusual cases for soap and toilet preparations made in the United States. This has the virtual effect of banning these United States made products from those countries.

Credit Men To Golf

The annual golf outing of the Drug, Cosmetic and Credit Men's Association will be held June 18, at Plandome Country Club, Plandome, L. I.

RAW MATERIALS FOR THE SOAP INDUSTRY



Lamepon K — *A soapless and limestable detergent for Textiles, Soaps, Insecticides, Sanitary Cleaners, Laundry Products.*

Lamepon 4C — *A foaming and wetting agent of slightly acid reaction for cosmetics.*

For samples and information write to

WELCH, HOLME & CLARK CO., Inc.
563 GREENWICH STREET — ESTABLISHED 1838 — NEW YORK CITY

Today...

...Tomorrow!

The LEADER in the Field of

Specification FATTY ACIDS for Soaps.

WOBURN
DEGREASING CO. OF N. J. — Harrison, N. J.

RAW MATERIAL MARKETS

As of May 27, 1943

NUMEROUS developments have taken place in the market during the past month. While the supply picture, especially as far as fats and oils are concerned, was not changed perceptibly, recent developments are bound to have a profound effect.

Set Linseed Ceiling

Probably the most important, and the most looked-for development in the market in the past month is the establishment of a ceiling on linseed oil. The OPA, acting to halt a steady rise in the price of linseed oil, set cents-per-pound maximum prices, May 21, which were the equivalent of a three-tenths of a cent roll-back from prices then current. By Amendment 33 to Revised price schedule 53, the basic price is 14.5c a pound for raw linseed oil, color 11-13; acid value 4; iodine value 170 to 190; saponification value 188-196; specific gravity .931-.935; viscosity A, delivered in Zone I of the nine geographical zones set up in the regulation. Zone I centers around Minneapolis and includes Minnesota, Iowa, Missouri, Illinois and Wisconsin. Maximum prices in other zones, except for Zone 9, California, are figured by the addition of set differentials based on freight charges. California, a linseed producing state, has the same maximum prices as Zone I. Prices for various grades and variously treated linseed oils are based on the 14.5c figure and have the same variation by geographical zone. Provision is made in the amendment for types or grades with specifications other than those listed in the schedule. In these cases the normal differentials continue to apply. There are also container and quantity differentials. Under the regulation, prices in Zone 2 (Buffalo) will be .2c over Zone I, and Zone 3 (New York City) will be .4c over, or 14.9c.

In a similar move, and on the same day, maximum prices for all sales and deliveries of domestic and imported flaxseed were set. The demand for flaxseed has increased both for domestic and Lend-Lease shipment, while imports dropped to about 4 million bushels in 1942 from about 16 million bushels in 1939. The new prices, established in the recent regulation, MPR No. 397, Flaxseed, were effective May 21.

Another important development in the oil and fat market this month was the announcement by the FDA that whole linseed oil might be made available to potash soapers without requiring them to recover its glycerine content. This move is planned as an emergency measure only, to afford some measure of relief to potash soap manufacturers, many of whom have been forced to restrict production because of raw material shortages. Individual applications are to be filed with the FDA for each month's needs, accompanied by stock and quota reports. See article pages 34 and 35 of this issue for full details.

Palm Oil Available for Soap

The War Food Administration announced on May 26 that manufacturers who had previously sold palm oil to the Commodity Credit Corporation from inventory stocks may now repurchase quantities equivalent to the original sale. Applications for repurchase, specifying exact amounts (in pounds) of oil sold to the CCC, must be filed by June 10, with the Fats and Oils Branch, Food Distribution Administration, Temporary Building S, Washington, D. C. Manufacturers applying must certify that they will use the oil in accordance with Food Distribution Order 38, regulating uses of palm oil, and in accordance with other government fats and oils regulations. They must use it in their own manufacturing processes.

Along the same line, fish oil owned by soap companies will be released to them for use, provided they file petitions under FDO 42 to use their stocks in soap, the Fats and Oils Branch of the Food Distribution Administration has just announced.

Free Chlorinated Hydrocarbon

The WPB recently amended GPO M-41 to permit greater quantities of chlorinated hydrocarbon solvents for civilian uses. The order provides that a person requiring hydrocarbon solvents for any use for which a preference rating of B-2 is assigned under the order may receive in any month not more than his average monthly consumption during the base period ending September 30, 1943. A user of carbon tetrachloride having a B-2 rating under the order may receive delivery in any month up to 150 per cent of his average monthly consumption during the base period. The amended order eliminates certification to WPB by purchasers on Form PD-127.

Reports of a heavier demand than supply of monoparachlorobenzol for the war effort is responsible for the strong position in parachlorobenzol. Deliveries of para are said to have almost ceased.

A similar case is that of lanoline which is being taken up almost entirely by the armed forces. Formerly a British import in considerable quantity, domestic output was never sufficient to meet requirements.

Available NOW!

SCHUNDLER BENTONITE

is ready for immediate shipment without priority rating . . .

Schundler Bentonite, known as the "clay of 1,000 uses" is ready for immediate shipment without priority rating. It is plentiful and is not on the list of critical materials. Prompt shipments are being made without "red tape."

AN IDEAL "SUBSTITUTE"

As a "substitute" or alternate for other materials—which may be scarce now—Schundler Bentonite is an ideal material used either alone or in combination. Investigate its application to your problem today.

" . . . . . 1,000 USES"

A few typical uses of Schundler Bentonite are: Purification of water supplies . . . Insulation blocks, plasters and cements . . . In Ceramic bodies to improve the green strength of lean clays and the quality of fired products . . . In Rubber latex adhesives . . . Emulsions and aqueous suspensions of bitumens . . . Compounds for machining and drawing metals . . . Polishes and cleaners . . . Adhesives and sizings in combination with starches . . . Pharmaceuticals and cosmetics . . . Paper manufacture to inhibit gumming of screens . . . Fluxing compounds for arc welding . . . Coating walls of asphalt containers.

TECHNICAL SERVICE INCLUDED

Schundler technical service goes with every order for Schundler Bentonite . . . a service backed by the largest scientific staff working in the best equipped laboratory in the Bentonite industry. Your inquiries are invited.

F. E. SCHUNDLER & CO., INC.

528 RAILROAD ST.
JOLIET, ILLINOIS

Schundler

Let "Monty*" the Activated Agent Bring

*Montmorillonite Structure

SUBSTITUTE AND OFF-GRADE OILS UP TO MEET WAR TIME DEMANDS

With normal sources of foreign oils cut off, the strain placed on the domestic supply has necessitated the use of substitute and off-grade oils to meet the pressing demands of war.

You can frequently adapt substitute oils, and improve the quality and the yield of off-grade oils when you process them with Special Filtrol. You use *less* Special Filtrol, therefore there is *less* press cake loss and you get *more* and *better* oils out of every stock grade.

Thus Special Filtrol solves two war time problems in one application—it brings substitute and off-grade oils up to standard and increases production. As a result, Special Filtrol enables you to contribute more of the ingredients essential to the war effort. Filtrol Corporation, General Offices: 634 S. Spring St., Los Angeles, California. Plants: Vernon, California and Jackson, Mississippi.

Special

FILTROL

THE ACTIVATED AGENT SPEEDS PRODUCTION—CONSERVES MATERIALS

RAW MATERIAL PRICES

(As of May 27, 1943)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .08½	$ .09
Acid, Boric, bbls., 99½%	ton	99.00	116.00
Cresylic, drums	gal.	.81	.83
Low boiling grade	gal.	.81	.83
Muriatic, C. P., carboys	lb.	.06½	—
Oxalic, bbls.	lb.	.11¼	.12½
Alcohol, Ethyl, drums	gal.	11.90	12.01
Complete Denat., SD1, dms., ex.	gal.	.62	.67
Alum. Potash lump, bbls.	lb.	.04½	—
Ammonia Water, 26°, drums	lb.	.02¼	.02½
Ammonium Carbonate, tech., drums	lb.	.08½	.09¼
Bentonite	ton	11.00	16.00
Bleaching Powder, drums	100 lb.	2.50	3.60
Borax, pd., bbls., bags	ton	50.00	66.00
Carbon Tetrachloride, car lots	gal.	.73	1.17
L. C. L.	gal.	.80	1.27
Cresol, U.S.P., drums	lb.	.09½	.10
Cresote Oil	gal.	.141	—
Feldspar, works	ton	17.50	20.50
Formaldehyde, bbls.	lb.	.05½	.06¼
Fullers Earth	ton	8.50	15.00
Glycerine, C.P., drums	lb.	.18¾	.19¼
Dynamite, drums	lb.	.18¼	.18¾
Saponification, drums	lb.	.12¾	—
Soap lye, drums	lb.	.11½	—
Lanolin, U.S.P., hydrous, drums	lb.	.32	—
Anhydrous, drums	lb.	.33	—
Lime, live, bbls.	ton	6.25	16.00
Mercury Bichloride, drums	lb.	2.24	2.39
Naphthalene, ref. flakes, bbls.	lb.	.08	.08½
Orthodichlorbenzene	lb.	.06	.08½
Paradichlorbenzene, drums	lb.	.11	.15
Petrolatum, bbls. (as to color)	lb.	.03⅜	.07¾
Phenol (Carbolic Acid) drums	lb.	.10½	.11¼
Pine Oil, drums	gal.	.55	—
Potash, Caustic, solid	lb.	.06¼	.06¾
Flake, 88-92%	lb.	.07	.07½
Liquid, 45% basis	lb.	.03⅛	.03½
Potassium Carbonate, solid	lb.	.06½	.06¾
Liquid	lb.	.03	.03⅛
Pumice Stone, coarse	lb.	.03⅝	.04¼
Rosins (net. wt., ex dock, New York)—			
Grade D to H	100 lb.	3.66	4.21
Grade I to N	100 lb.	4.25	4.50
Grade WG to X	100 lb.	4.77	5.00
Rotten Stone, dom., bags	lb.	.0128	.019
Silica	ton	17.00	27.00
Soaps—			
Tallow Chip, 88%	lb.	.11	.11⅝
Powder, 92%	lb.	.11⅜	.12
Powdered, White Neutral	lb.	.25½	.42
Olive Oil Paste	lb.	.40	—
Shampoo Base	lb.	.18	.20
Liquid Concentrate, 30-32%	gal.	.75	.79
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.15	3.25
Car lots, in bulk	100 lb.	.90	—
Soda Caustic, cont., wks., solid	100 lb.	2.30	3.15
Flake	100 lb.	2.70	3.55
Liquid, tanks, 47-49%	100 lb.	1.92½	1.95
Soda Sal., bbls.	100 lb.	1.20	1.40
Sodium Chloride (Salt)	ton	14.20	18.00
Sodium Fluoride, bbls.	lb.	.07	.08¼
Sodium Bisulfate	100 lb.	2.25	2.50
Sodium Metasilicate, anhyd.	100 lb.	4.00	5.30
Granulated	100 lb.	2.50	3.55
Sodium Pyrophosphate	100 lb.	5.28	6.60
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks	100 lb.	1.40	1.80
Tar Acid Oils, 15-25%	gal.	.27½	.33⅓
Triethanolamine	lb.	.19	.20
Trisodium Phosphate, bags, bbls.	100 lb.	2.70	4.15

Oils — Fats — Greases

Babassu, tanks, futures	lb.	.1110	Nom.
Castor, No. 1, bbls.	lb.	.15¼	.16
No. 3, bbls.	lb.	.13¾	.14¼
Coconut (without excise tax)			
Manila, tanks, N. Y.	lb.	No Prices	
Tanks, Pacific Coast, futures	lb.	No Prices	
Copra, bulk, coast	lb.	No Prices	
Corn, tanks, West	lb.	.12¾	.15½
Cottonseed, crude, tanks, mill	lb.	.12¾	—
PSY, futures	lb.	.13⅞	.14⅛
Fatty Acids—			
Corn Oil, tanks, Chicago	lb.	.14	.14½
Coconut Oil, tanks, Twitchell, Chi.	lb	.17½	.18
Cotton Oil, tanks, Chicago	lb.	.14	.14½
Settled soap stock, Chicago	lb.	.03⅞	.04
Boiled soap stock, 65%, Chi.	lb.	.04⅞	.05
Foots, 50%, Chicago	lb.	.03½	.03¾
Castor Oil, split, tanks, N. Y.	lb.	.20¾	.21¼
Linseed Oil, split, tanks, N. Y.	lb.	.18½	—
Distilled	lb.	.21	.21½
Myristic acid, distilled, tanks, N.Y.	lb.	.19	.19½
Palm Oil, white tanks, N. Y.	lb.	No Prices	
Single distilled	lb.	No Prices	
Soybean Oil, split, tanks, N. Y.	lb.	.1175	—
Distilled	lb.	.1389	.1400
Red Oils, bbls., dist. or sapon	lb.	.1325	.1425
Tanks	lb.	.12½	—
Stearic Acid, saponif.			
Double pressed	lb.	.15	.16
Triple pressed	lb.	.18	.19
Greases, choice white, tanks	lb.	.08⅞	—
Yellow	lb.	.07¾	—
Lard, city, tubs	lb.	.1380	—
Linseed, raw, bbl.	lb.	.1560	.1640
Tanks, raw	lb.	.1520	.1540
Olive, denatured, bbls., N. Y.	gal.	4.10	4.20
Foots, bbls., N. Y.	lb.	.19	Nom.
Palm, Sumatra, cif. New York, tanks	lb.	No Prices	
African, tanks, ex. ship	lb.	.08¼	Nom.
Palm, kernel	lb.	No Prices	
Peanut, crude, tanks, mill	lb.	.13	Nom.
Soya Bean, domestic, tanks, crude	lb.	.11¾	Nom.
Stearin, oleo, bbls.	lb.	.1054	—
Tallow, special, f.o.b. N. Y.	lb.	.08½	—
City, ex. loose, f.o.b. N. Y.	lb.	.08⅝	—
Teaseed Oil, crude	lb.	.29	Nom.

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Check this table comparing Valencia with the highest grade of imported Italian Pumice. See for yourself that Valencia is truly the standard of American Pumice.

	American Pulverized Per Cent	Italian Select Per Cent
Silica	72.90	73.24
Alumina	11.28	10.61
Iron Oxide	.86	1.57
Titanium Oxide	.06	.10
Calcium Oxide	.80	1.10
Magnesium Oxide	.36	.40
Soda	3.64	3.03
Potash	4.38	5.58
Sulphuric Anhydride	.03	.05
Loss on ignition	5.20	4.04

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(As of May 27, 1943)

Essential Oils

Almond, Bitter, Artificial	lb.	$3.50	$3.75
Bitter, F.F.P.A.	lb.	5.25	5.50
Sweet, cans	lb.	1.85	1.95
Anise, cans, U.S.P.	lb.	3.25	3.60
Bay, 55-66% phenols, cans	lb.	1.60	2.10
Bergamot, coppers	lb.	32.00	Nom.
Artificial	lb.	2.25	6.50
Birch Tar, rect., cans	lb.	—	—
Crude, cans	lb.	—	—
Bois de Rose, Brazilian	lb.	4.75	5.00
Cayenne	lb.	—	—
Cade (juniper tar), drums	lb.	1.50	Nom.
Cajeput, tech., drums	lb.	—	2.10
Calamus, cans	lb.	—	—
Camphor, Sassy, drums	lb.	—	—
White, drums	lb.	—	—
Cananga, native, cans	lb.	17.00	17.50
Rectified, cans	lb.	18.25	20.00
Cassia, Redistilled, U.S.P.	lb.	10.50	12.00
Cedar Leaf, cans	lb.	1.05	1.35
Cedar Wood, light, drums	lb.	.75	1.00
Citronella, Java, drums	lb.	—	—
Citronella, Ceylon, drums	lb.	1.10	1.25
Clove, U.S.P., cans	lb.	1.80	2.00
Eucalyptus, Austl., U.S.P., cans	lb.	1.30	1.50
Fennel, sweet, cans	lb.	3.60	—
Geranium, African, cans	lb.	30.00	Nom.
Bourbon, cans	lb.	24.00	—
Turkish (Palmarosa)	lb.	5.25	5.50
Hemlock, cans	lb.	1.20	1.25
Lavender, 30-32% ester, cans	lb.	9.00	9.25
Spike, Spanish, cans	lb.	4.25	4.35
Lemon, Ital., U.S.P.	lb.	—	Nom.
Cal.	lb.	3.00	—
Lemongrass, native, cans	lb.	1.75	2.00
Linaloe, Mex., cases	lb.	4.25	—
Nutmeg, U.S.P., cans	lb.	5.25	5.50
Orange, Sweet, W. Ind., cans	lb.	6.00	6.25
Italian cop	lb.	8.00	Nom.
Distilled	lb.	1.00	—
California, expressed	lb.	1.60	—
Origanum, cans, tech.	lb.	2.75	2.90
Patchouli	lb.	8.00	8.50
Pennyroyal, dom.	lb.	—	—
Imported	lb.	3.15	3.25
Peppermint, nat., cans	lb.	5.50	5.75
Redis., U.S.P., cans	lb.	6.00	6.25
Petitgrain, S. A., cans	lb.	1.95	2.20
Pine Needle, Siberian	lb.	3.00	3.25
Rosemary, Spanish, cans	lb.	2.25	2.30
drums	lb.	2.10	2.15
Sandalwood, dom., dist., U.S.P.	lb.	5.85	6.25
Sassafras, U.S.P.	lb.	1.85	2.00
Artificial, drums	lb.	1.75	1.85
Spearmint, U.S.P.	lb.	—	3.40
Thyme, red, N. F.	lb.	3.25	3.50
White, N. F.	lb.	3.50	3.75
Vetiver, Java	lb.	42.00	50.00
Ylang Ylang, Bourbon	lb.	—	—

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.55	$1.60
Amyl Cinnamic Aldehyde	lb.	—	—
Anethol	lb.	2.25	2.40
Benzaldehyde, tech.	lb.	.45	.55
N. F. VI	lb.	.85	2.75
Benzyl, Acetate	lb.	.59	Nom.
Alcohol	lb.	.63	.75
Citral	lb.	4.75	5.00
Citronellal	lb.	2.75	3.25
Citronellol	lb.	7.00	7.25
Citronellyl Acetate	lb.	—	—
Coumarin	lb.	2.75	3.25
Diphenyl oxide	lb.	.43	.50
Eucalyptol, U.S.P.	lb.	3.25	3.40
Eugenol, U.S.P.	lb.	2.75	2.80
Geraniol, Soap	lb.	2.50	3.00
Other grades	lb.	3.50	4.00
Geranyl Acetate	lb.	—	—
Heliotropin	lb.	5.25	Nom.
Hydroxycitronellal	lb.	7.25	8.75
Indol, C. P.	lb.	28.00	30.00
Ionone	lb.	2.75	3.95
Isoborneol	lb.	.81	.90
Iso-bornyl acetate	lb.	.80	.95
Iso-Eugenol	lb.	—	—
Linolool	lb.	6.75	7.00
Linalyl Acetate	lb.	5.50	7.25
Menthol, natural	lb.	—	—
Synthetic, U.S.P.	lb.	13.00	19.00
Methyl Acetophenone	lb.	—	—
Anthranilate	lb.	2.20	2.35
Paracresol	lb.	—	—
Salicylate, U.S.P.	lb.	.35	.40
Musk Ambrette	lb.	4.00	4.45
Ketone	lb.	4.15	4.60
Xylol	lb.	1.40	1.80
Phenylacetaldehyde	lb.	5.00	6.00
Phenylacetic Acid	lb.	1.85	1.90
Phenylethyl Alcohol	lb.	2.10	2.50
Rhodinol	lb.	—	—
Safrol	lb.	2.25	2.45
Terpineol, C.P., dra.	lb.	.40	—
Cans	lb.	.43	—
Terpinyl Acetate, 25 lb. cans	lb.	.87	—
Thymol, U.S.P.	lb.	3.00	Nom.
Vanillin, U.S.P.	lb.	2.35	2.75
Yara Yara	lb.	1.80	1.85

Insecticide Materials

Insect Powder, bbls.	lb.	.29	.30
Pyrethrum Extract			
20 to 1	gal.	5.90	6.00
30 to 1	gal.	8.85	9.00
Derris, powder—4%	lb.	.31	—
Derris, powder—5%	lb.	.35	—
Cube, powder—4%	lb.	.31	—
Cube, powder—5%	lb.	.35	—
Squill, red, dried	lb.	.85	1.00

Waxes

Bees, white	lb.	.57	.63
African, bgs.	lb.	.3750	—
Refined, yel.	lb.	.5250	.6050
Candelilla, bgs. (crude)	lb.	.38	—
Carnauba, No. 1, yellow	lb.	.8325	.8925
No. 2, N. C.	lb.	.7575	.8175
No. 3, Chalky	lb.	.7125	.7725
Ceresin, yellow	lb.	.13½	.18
Montan Wax, bags	lb.	.45	.46
Paraffin, ref., 125-130	lb.	.0520	.0560

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The sample that will prove to you the advantages of using Nuchar Activated Carbon for treatment of oils and fats.

Oil refiners have found NUCHAR GFO to be the outstanding carbon for the bleaching of Oils and Fats, both for edible and soap purposes.

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PRODUCTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, Oil & Fat Industries.

Glycerine by Fat Splitting

MAXIMUM glycerine production is at present of vital importance. Fat splitting is a means to expand glycerine output. The normally slow rate of hydrolysis of fats may be increased in various ways. By increasing the pressure and adding either sulfuric acid or lime, the velocity of reaction and the condition of equilibrium are such as to give an economical process. By the use of special acid catalysts such as Twitchell reagent, hydrolysis can be effected satisfactorily at ordinary pressures and temperatures. Some of the new methods that are being developed use catalysts such as zinc oxide or magnesium stearate, and higher pressures and temperatures than those of the old autoclave process. All of these processes have the disadvantage of depending on balanced reactions which do not carry the hydrolysis to completion but leave a certain proportion of neutral oil.

Twitchell Process

In the Twitchell process the oil or fat is given a preliminary wash with sulfuric acid and then hydrolyzed by boiling with sulfuric acid and the special catalyst. The reaction is reversible so that a compromise has to be made between the completeness of hydrolysis at the end of the reaction and the final concentration of glycerine in the sweetwater, since as the former increases the latter has to be decreased. The usual procedure is to arrange the conditions so that the free fatty acid content of the oil is about 85 per cent after boiling for 12 hours, and the glycerine content of the sweetwater approximately 12½ per cent. This sweetwater is then run to treatment and the 85 per cent free fatty acid-oil further hydrolyzed to about 95 per cent of free fatty acids by a second boil with fresh water.

The efficiency of glycerine recovery is improved by using the sweetwater from the second boil for the first boil of the succeeding split. The sweetwater treatment consists in the removal of albuminous matter by precipitation with aluminum sulfate and neutralization of the sulfuric acid with lime. The treated sweetwater may either be evaporated in one stage to 88 per cent glycerine or the concentration effected in two stages, the semi-crude being re-filtered to remove calcium sulfate.

The chemical composition of the Twitchell reagent affects the purity of the refined glycerine produced from the sweetwaters. Any water-soluble acids that it contains will dissolve in the sweetwater and eventually increase the ash content of the refined glycerine in the form of their calcium or sodium salts. Several improved varieties of the Twitchell reagent are now known and are generally used because they reduce time of operation and improve the color of the resultant fatty acids. Since they contain less water-soluble substances, and a smaller amount is required to give the splitting activity, they incidentally improve the glycerine quality.

The Petroff contact reagent is a by-product in the refining of petroleum oils with fuming sulfuric acid; it is said to be the sulfonic acid of hydrocarbons, but probably not of the paraffin series. The Pfeilring reagent is prepared by sulfonation of castor oil and naphthalene. The Idrapid hydrolysis reagent is probably octa-hydroanthracene sulfonic acid. Nekal BX is reported to be 1-isopropyl naphthalene-2-sulfonic acid.

The crude glycerines obtained by the Twitchell process are only slightly inferior to those made by the autoclave process; these so-called saponification crudes are superior to soap-lye crudes in content of ash and organic impurities. The overall glycerine recovery by this process is higher than in soap boiling, although in both cases it will vary considerably according to the efficiency of various plants. A recovery of 90 per cent of the theoretical glycerine content may be taken as good practice for Twitchell splitting.

Autoclave Process

Fat splitting by the autoclave process is effected by steam under a pressure of the order of 200 pounds

per square inch in the presence of a catalyst — usually zinc oxide. This process gives a good yield of glycerine and the sweetwaters contain about 10 per cent of glycerine. They are treated before evaporation with sulfuric acid followed by lime, and the zinc hydroxide and calcium sulfate filtered off. These lyes can easily be concentrated to 88 per cent glycerine. The resultant crude is of good quality, the organic residue being less than 1 per cent.

Continuous Process

In 1884 a patent was taken out by R. Tilghman for a continuous process of hydrolyzing oils and fats, but apparently nothing came of it. However, within the last five years there have been sudden rapid developments in the practical application of continuous methods.

In a countercurrent system water is fed in near the top of a column, and fat near the bottom. As the fat rises, the water flows through it, extracting glycerine as it is formed from the oil phase. Both reactants are preheated before entering the hydrolyzer column, where hydrolysis takes place at a pressure of the order of 500 pounds per square inch and at a temperature not far below that of saturated steam at the operating pressure, probably 225-250°. This procedure is to keep a liquid aqueous phase.

From the top of the column fatty acids pass to a flash tank, and from the bottom the glycerine sweetwaters go to a reduced-pressure zone where some of the water is evaporated by flashing. The time of contact of oil with water in the hydrolyzer column is about 30 minutes.

The process depends on the fact that at high temperatures and pressures oils and fats are miscible with liquid water to a considerable extent. Consequently it becomes possible to have the glycerine and the water present in a single phase and so to obtain a much higher saponification rate than in any of the older methods. This is in accordance with the theory that all saponifications are homogeneous reactions in a single phase and not interface reactions. The increase in the rate of reaction under the new conditions is sufficient to make continuous operation practicable.

Not only does countercurrent hydrolysis of fats offer a more economical method of fat splitting, but it is superior to other methods in giving an almost theoretically complete hydrolysis of the neutral fat, lighter colored fatty acids, and a glycerine sweetwater of higher concentration and purity. The completeness of hydrolysis can be put at a minimum of 97 per cent if the correct conditions of temperature, pressure and rate of feed for the particular oil or fat are complied with, and the correct ratio of water to oil is used.

Continuous saponification processes are perhaps better known to soapers than those for continuous hydrolysis. In the former, direct alkaline saponification to produce soap and glycerine is carried out under suitable conditions. J. L. Boyle. *Manufacturing Chemist* 14, 89-91, 1-6 (1943).

Factors in Soap Building

Building soap in the laundry is an individual problem for each laundry because of the variation in conditions from one place to another,— chiefly in the water supply. Flexibility in building soap is accepted as an efficient procedure provided proper weights of soap and alkali are adhered to. A review of soap building in general emphasizes the following points to produce quality work with economy:

1. Standardization on a well balanced, efficient basic soap builder.

2. Controlled alkali:soap ratio. In the break, the stock soap solution can be altered to fit the washing of light colors which require less alkali.

3. Keeping the amount of alkali in the stock soap solution at a ratio that requires the least rinsing, thus keeping tensile-strength losses at a minimum because of less mechanical action.

4. Fewer rinses to reduce costs and time.

5. High pH in the break constributes to improved soil removal.

6. Placing more washing burden on the less costly detergent, alkali instead of soap.

7. Economical use of soap which avoids overflow and waste. L. W. Wright. *The Laundryman*, April, 1943.

◆

Oil Content of Soybeans

Penalties for the presence of green beans in shipments of soybeans intended for oil extraction appear to be unjustified, since beans of different stages of maturity taken from one shipment showed the following oil content: Composite sample as it came from the field, 20.51 per cent; shriveled beans from frozen top pods, 19.24; plump beans but green inside and out, 21.07; well matured beans, deep yellow throughout, 19.80; well matured beans, slightly lighter yellow, 19.96 per cent. Russell S. Davis. *Soybean Digest* 3, No. 4, 5 (1943); through *Chem. Abs.*

◆

Sour for Wool

The application of alkalies to wool tends to make it harsh. Furthermore, residues of alkali favor mildew attack, and so a slight residual acidity is not to be feared. Many dyed woolen goods come out somewhat brighter when given a final rinse after washing by immersion in 1 per cent acetic acid, which may be safely left on. This principle cannot be carried too far for fabrics worn next to the skin. However, for carpets and rugs, a final brush with weak acetic acid never does harm and tends to keep the colors bright. A. H. Preston. *Manufacturing Chemist* 14, 109 (1943).

◆

Autoxidation of Oils

The highly unsaturated acids of fish oils and their esters are readily autoxidizable. The peroxide groups which form decompose spontaneously, causing chain scission in some molecules and forming oxygen-containing groups in some others. The unpleasant fishy odor of fish-oil acids and their esters appears to be due entirely to the scission products. E. H. Farmer and D. A. Sutton. *J. Chem. Soc.* 1943, 122-5.

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U.S.I. CHEMICAL NEWS

June ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1943

Indalone Available To Companies Having High Priority Ratings

Insect-Repellent Is Now Obtainable from U.S.I.

Quantities of Indalone, an insect-repellent outstanding for its slow-evaporating and film-forming characteristics, are now available from U.S.I. to companies having high priority ratings.

Virtually odorless and non-greasy, Indalone owes its repellency to its bitter taste and its effect on the nerve endings in the feet of insects. Of particular interest today is the ability of Indalone to repel effectively such insects as biting flies, mosquitoes, chiggers and other insects.

Additional information on the properties and uses of Indalone will be gladly furnished by U.S.I. on request.

To save lives of crashed pilots, a truck has been developed which smothers the flames of a burning plane in less than three minutes with thousands of pounds of carbonic acid ("DRY-ICE"*). Streams of CO_2 are sprayed from the main boom nozzle and from two bumper outlets in front of the tires.

* Pure Carbonic, Incorporated, sells "DRY-ICE" manufactured by U.S.I

Methoxyl, Ethoxyl Groups Determined by New Method

MONTREAL, Canada — What is claimed to be a simpler and more accurate method for the simultaneous determination of methoxyl and ethoxyl groups has been developed by two research workers here.

The difficulty normally encountered in completely removing crystalline tetramethyl salt is said to have been overcome by washing out the absorption tubes with a small quantity of water followed by stock 97% ethanol. This innovation is reported to have also obviated the necessity for using an absolute ethanol solution of trimethylamine.

The difficulty in isolating the ethyl iodide quantitatively, encountered in present methods for a combined methoxyl-ethoxyl determination, is said to have been overcome by first determining total alkoxyl according to the standard Vieböck-modified Zeisel procedure, then determining the methoxyl content alone according to a modified Wilstätter procedure.

Ethyl Acetoacetate Plays Vital Role In Anti-Malarials, Vitamin B_1

U.S.I. Intermediate Used in Synthesis of Quinacrine Hydrochloride, Plasmoquin and Thiamin Hydrochloride

Ethyl acetoacetate, which has heretofore found principal use in the manufacture of the pyrazolone and Hansa Yellow pigments, has now assumed a vital role in the production of the strategic products, Quinacrine hydrochloride (Atebrin), Plasmoquin, and Thiamin hydrochloride (Vitamin B_1). These three products are playing a very important part in the war and will undoubtedly be extremely valuable in the peace to follow. In addition, ethyl acetoacetate can be used in the synthesis of the essential amino acids. In all of these syntheses, the ethyl acetoacetate is first converted to the sodium salt with sodium ethoxide.

Used as Substitutes

Quinacrine and Plasmoquin are the synthetic anti-malarials which are being substituted for the unobtainable quinine and other alkaloids usually imported from the Dutch East Indies. Quinacrine and Plasmoquin have the same side chain, 4-amino-1-diethyl amino pentane, attached to 3-chloro-7-methoxy-acridone and methoxy-quinoline respectively. It is in the preparation of this side chain that the ethyl sodium acetoacetate is used. This synthesis is represented by the first three reactions in the box below.

In the synthesis of thiamin, ethyl sodium acetoacetate is reacted with ethylene oxide to give alpha acetyl gamma butyro lactone. From the alpha acetyl butyro lactone, either 4-methyl, 5-beta-hydroxyethyl thiazole or 2-methyl-2-ethoxy-3-chloro tetra-hydro furane is prepared which are condensed with 2-methyl-4-amino-5-halogeno methyl pyrimidine and 2-methyl-4-amino-5-thioformylamino methyl pyrimidine respectively to give vitamin B_1. The commercial production of thiamin is now well established and indications are that the volume will be substantially increased in the months to come.

Amino Acids

Several investigations have shown that there are ten amino acids which are essential for human and animal life. With the projected nutrition programs, these amino acids should become of increasing importance. Starting with ethyl sodium acetoacetate, it is indicated that these amino acids can be made according to the fourth reaction in the box below.

(Continued on next page)

Advise Low Temperature Crystallization Oil Analysis

MADISON, Wis. — Speed and applicability to small samples are among the advantages claimed by three research workers here for the use of low temperature crystallization from acetone solution as a method of determining the saturated fatty acids in glycerides.

The fatty acids are dissolved in dried, redistilled acetone in a 50 cc. centrifuge tube which is then immersed in a low temperature alcohol bath. The temperature is lowered to —40°C. by the addition of solid carbon dioxide. After standing 15 to 20 minutes the tube is placed in a metal centrifuge tube cooled to the same temperature and centrifuged briefly to throw out the crystalline saturated acids. The supernatant solution is then transferred to a weighed tube. Acetone at —40°C. is blown from a pipette into the tube containing the saturated acids and the tube rotated rapidly to wash the precipitate.

Preparation of Membranes for Ultrafilter in Tanning Studies

CINCINNATI, Ohio — A new method for the preparation of membranes to be used in ultrafiltration in tanning research, that differs principally from other procedures in the evaporation of solvents and in the mechanics of calibration, was recently revealed by a chemist here.

In the preparation of membranes by this method, a portion of the solvents is evaporated from a collodion solution with the resultant formation of a gel.

A stock solution of the following composition is recommended:

Parlodion (Mallinckrodt)	150 gm.
Absolute ethanol	316 ml.
Absolute ethyl ether	1043 ml.
Acetone	1453 ml.
Amyl alcohol	575 ml.

Ethyl Sodium Acetoacetate Used in Preparing Quinacrine and Plasmoquin Side Chains

$$(C_2H_5)_2NC_2H_4OH + HCl \longrightarrow (C_2H_5)_2NC_2H_4Cl + H_2O$$

$$(C_2H_5)_2NC_2H_4Cl + CH_3C(ONa):CHCOOC_2H_5 \longrightarrow CH_3COCHCOOC_2H_5$$

$$\downarrow CH_2CH_2N(C_2H_5)_2$$

$$\downarrow H_2O \quad \text{Decarboxylate}$$

$$CH_3COCH_2CH_2CH_2N(C_2H_5)_2$$

$$CH_3COCH_2CH_2CH_2N(C_2H_5)_2 + NH_3 \xrightarrow{H_2} CH_3CHNH_2CH_2CH_2CH_2N(C_2H_5)_2$$

Amino Acids Made With Ethyl Sodium Acetoacetate

$$CH_3C(ONa):CHCOOC_2H_5 \xrightarrow{RCl} CH_3COCHRCOOC_2H_5 \xrightarrow{C_4H_9ONO + H_2SO_4}$$

$$RC:(NOH)COOH \xrightarrow{H_2} RC(NH_2)HCOOH$$

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June ★ **U.S.I. CHEMICAL NEWS** ★ 1943

Ethyl Acetoacetate Uses

(Continued from preceding page)

Important Properties

The reactions given are typical of the wide variety obtainable with ethyl acetoacetate which lead to an extended list of valuable products. The two properties which make it important in chemical synthesis are:

1. The reactivity of the hydrogen on the carbon adjacent to the $COOC_2H_5$ group. Hydrogen substitutions at this point lead to the introduction of groups such as halogen, metal, acyl and alkyl radials. Ammonia, aniline, urea and many other types of compounds containing the NH_2 group, add with the elimination of water.

2. The addition products (especially the amides) mentioned above have a tendency to close into ring structures of the most varied types, giving for example substituted pyrroles, pyrazoles, pyrazolones, pyrimidines, pyridines, quinolines, isoxazoles, furane and coumarin derivatives.

Crystallized Heart Stimulants Obtained by Simplified Method

NEPERA PARK, N. Y. — A patent has been assigned to a company here for what is claimed to be a simpler, better method of obtaining crystallized heart stimulants both from the amorphous products and directly from the crude extract of the raw material.

According to the invention, glucosides in crystallized form may be obtained from their solutions in organic solvents, or in a mixture of such solvents with water, by having same adsorbed on hydroxides of polyvalent metals, and afterwards fractionating and eluting from the adsorbing material. It is claimed that the pure products may be obtained from the eluates by evaporation, salting out or by precipitation.

Typical Procedure

Following is a typical example of the procedure: 5 grams of crude glycosides obtained from *Digitalis purpurea* are dissolved in a mixture of 80 cc. ethanol and 20 cc. acetone. To this solution, under shaking, first 10 cc. water is added and then a suspension of aluminum hydroxide (equivalent to 8 grams aluminum oxide) in 150 cc. of ethanol. The adsorbent is collected and eluted with pyridine. The pyridine solution is then concentrated to a small volume in vacuum and diluted with ethanol. On careful addition of water digitoxin is said to crystallize out.

Method for Spot Testing In Solvent Extractions

IVORYDALE, Ohio — A simple spot test for determining the completeness of extraction of fatty oils or other nonvolatile liquids with volatile solvents, has been evolved by a chemist here with the use of ground glass.

Drops of the solution under test and of the solvent are placed on a clean ground glass to evaporate. Depending on the amount of solute present, the transparencies formed are said to vary from that of the clean plate with the pure solvent to a disk of clear transparency of about the same area as that of the spot before evaporation. A wide variety of intensities lies between these extremes. At low concentrations of solute, one or more circular lines of approximately hairline thickness are formed. The residue can also be viewed against a dark background. The black test may show a slight hairline transparency of varying intensity when the solvent is impure.

The limit of sensitivity of the test described is about one part of solute in 20,000 parts of solvent. By allowing two or more drops of solution to evaporate on the same spot, or by dusting the spots with a dark powder, greater sensitivity can be obtained.

Paba Ester Is Utilized In New Thiamin Assay

CHICAGO, Ill. — A new thiamin assay has been developed by two professors here, based on the pink to red coloration formed when thiamin is reacted with diazotized ethyl *p*-aminobenzoate. The thiamin does not have to be absorbed prior to the application of the test.

In applying the new method, the colored compound resulting from the reaction of diazotized ethyl *p*-aminobenzoate and thiamin is extracted with isoamyl alcohol and the extract compared with a series of standards using a Pulfrich photometer. It is reported that maximum color is produced within two minutes and is stable for at least three months. Solutions containing as little as three to six gammas per five cc. of solution can be tested.

New Fungicide, Deodorant

ORADELL, N. J. — A patent has been awarded to an inventor here for a combination fungicide and deodorant which is composed of approximately one part of cadmium chloride, one part of sodium dioctylsulfosuccinate, and 98 parts of 30% ethyl alcohol.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

A cleaner for plastic glass is announced which is said to emulsify grease and engine spatter. Among the claims made for this product are that it is non-toxic and safe on paint or hands, that it is free-rinsing, thus leaving no grease on the surface, and that it does not cause "crazing" or infinitesimal scratches. **(No. 700)**

U S I

A chemurgic rubber has been developed for use where service requirements are not too high. The maker claims it may be used independently or as an extender blended with natural, reclaim or synthetic rubber. Water, alcohol and lubricating oils are said to have no apparent effect on this product nor antioxidants upon accelerated aging tests. Its reactions to solvents and chemicals are generally similar to that of rubber. **(No. 701)**

U S I

A methyl salicylate substitute is offered for technical purposes only, not for food stuffs. **(No. 702)**

U S I

Dust masks and caps have been developed from a vegetable fibre product which the maker says may be stitched, washed and ironed. **(No. 703)**

U S I

An adhesive is announced for bonding a wide variety of products to themselves as well as to such other surfaces as cork, glass, rubber, leather, paper, fiberboard, and wood. Drying time on porous surfaces is said to be about 20 minutes, on non-porous surfaces somewhat longer. The bond is claimed to develop early strength and have high initial tack. **(No. 704)**

U S I

A hand cleaner is announced for the removal of paint, grease, grime, ink and other stains. The maker says it can be used without scrubbing and without soap or water. It is claimed to contain no grit or pumice stone. **(No. 705)**

U S I

A compound of reclaim rubber emulsion has been developed which is said to save 40% of the reclaim by substitution, to afford combining strength to cloth closely approaching that of latex, and to impart resistance to weakening in the presence of water far superior to the reclaim rubber itself. This compound is expected to find wide application where reclaim rubber and latex have been used as adhesives or coatings. **(No. 706)**

U S I

A dehydrated glue is offered in crystal and powder form which is said to decrease shipping bulk and improve final working qualities. **(No. 707)**

U S I

A liquid material for floors is announced which is claimed to produce a non-slip, wear-resisting surface that protects metal from corrosion and wood from moisture. This surface is also said to be resistant to the action of oil, grease, gasoline, salt, sulphur and cleaning materials. **(No. 708)**

U S I

Improved concrete dispersion is claimed for a new liquid put on the market. Added to a concrete mix in the proportion of 1 qt. per bag of Portland cement, it is said to reduce the amount of water used by 80%, improve workability of the mix, and increase compressive strength. **(No. 709)**

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Butyl Phthalate
Ethyl Phthalate

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Ethyl Carbonate
Ethyl Chloroformate
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Spontaneous Soap Heating

SPONTANEOUS heating of soap, a problem which is occasionally encountered with powdered, chipped or milled soap, is the subject of an article by W. H. Simmons in the March, 1943, issue of *Soap, Perfumery and Cosmetics*, London. Powdered soap is naturally more prone to be affected, the author points out, although even with soap chips or ribbons a less violent oxidation occasionally occurs. Particularly during storage a combination of conditions may cause a considerable rise in the temperature of the mass, sufficient to cause charring of the soap, or in less serious cases, discoloration, accompanied by development of an unpleasant rancid or burnt odor.

In all such cases, says Mr. Simmons, "one always finds the presence of appreciable amounts of (a) free fatty acids, and (b) oxidized fatty acids, insoluble in petroleum spirit, but soluble in ether, so that it is quite evident the phenomenon of spontaneous heating is one of oxidation, in which some of the fatty acids break down to acids of lower molecular weight, and either some of these products of decomposition, or some of the unsaturated fatty acids originally present, become oxidized. In one case as much as 13.7 per cent of free fatty acids was found, and the amount of oxidized acids was 16 per cent."

Many reasons have been suggested for this oxidization and spontaneous heating of soap, among those listed being the following:

(1) the nature and quality of raw material saponified;
(2) the process of manufacture, including method of cooling;
(3) the presence of unsaponified fat in the soap.
(4) metallic contamination of either the raw materials or the soap; e.g., with traces of iron, copper, or nickel;
(5) method and conditions of storage;
(6) perfume.

Commenting specifically on these possible causes, the author points out that there is no question that the use of rancid raw material does tend toward the production of rancid soap, in spite of the purification which takes place during the soap making process. Further elaborating this point as to the role of raw material, he points out that soaps made from oils with high iodine values are more liable to oxidation than those made from material of lower iodine values.

Concerning the role of the process of manufacture, it is pointed out that the cold process is particularly dangerous in that it is more liable to permit the presence in the finished soap of unsaponified fat. The same charge could be leveled against newly introduced rapid methods of saponification. Whatever process is used, the author warns, it is vitally important that the fatty material should be completely saponified.

Probably the most serious cause of nearly all troubles involving oxidation of soap, says Mr. Simmons, is contamination with metal, iron, copper or nickel, which promote oxidation by acting as catalysts. Copper is a more dangerous contaminant than iron, he says, and there is some evidence to show that the form in which the metal is present, whether as metal, oxide or salt, has an influence on its catalytic effect. It would seem logical that the actual presence of metal as such would be the more dangerous form of contamination, but Wittka has shown that in the case of copper, merely wetting the soap with a solution of a copper salt was sufficient to catalyze the oxidation of the soap.

The conditions under which the soap is stored, he warns, play an important part in the spontaneous heating of soap. Temperature and humidity have an important influence and humidity should be kept as low as possible by efficient ventilation. A still greater effect has been shown to be brought about by pressure, and the heaping up of soap chips so that the lower layers are under considerable pressure is particularly to be avoided.

As to the role of perfume in soap charring, generally speaking, the perfume will tend to preserve the soap and help prevent rancidity. Danger is encountered, however, says Mr. Simmons, with the use of very acid perfume, which may decompose some soap and liberate free fatty acids which subsequently may become oxidized.

As to specific methods of preventing trouble from this source, in addition to the precautions listed above, the author suggests the possible desirability of incorporating 2 per cent of rosin. In the case of soap powder, he suggests incorporation of 1 per cent of common salt as a safeguard. Other antioxidants are also suggested, including sodium or ammonium thiosulfate, stannous chloride, hydroquinone, and other aromatic phenols.

—— ♦ ——

Colloidal Electrolytes

Freezing-point data have been obtained for a series of Aerosols, a Tergitol, two potash soaps and several members of the same homologous series, and sodium tri-isopropyl naphthalene sulfonate. Following the very dilute region in which practically only ions are present, there is a range in which the concentration increases ten fold while the freezing point is only slightly lowered. After this, the osmotic coefficient remains nearly constant at a low value and may even pass through a minimum, the lowering of the freezing point being then approximately proportional to the concentration. James W. McBain and O. E. A. Boldnan. *J. Phys. Chem.* 47, 94-103 (1943).

—— ♦ ——

Black Liquor Treatment

Black liquor is acidified and partially extracted with tall oil to obtain a tall-oil extract and an improved black liquor raffinate. The tall-oil soaps are salted out from the raffinate in the presence of excess caustic alkali under nonoxidizing conditions. John Ross and Joseph H. Percy, to Colgate-Palmolive-Peet Co. U. S. Patent No. 2,296,952.

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Amend Federal Soap Specs

A LENGTHY series of amendments to federal specifications for soap products has just been issued by the U. S. Bureau of Standards. Most important general change is a revision in maximum glycerol content, which has been reduced to 0.8% for a long list of soaps to bring the specifications into line with current FDA regulations. Glycerol content is to be calculated and reported on the basis of the anhydrous soap content. Another general change common to most of the new amendments is elimination of previous provisions for packing certain products in metal containers. Still another change which has been made in numerous specifications is the provision that "fatty acids" as well as fats are acceptable raw materials.

The specifications for milled toilet soap (P-S-621a) and white floating toilet soap (P-S-616a) have been amended to allow for inclusion of 10% of rosin, while in the amended spec for hand grit soap (P-S-576) 5% of rosin is now permissible. In the case of ordinary bar laundry soap (P-S-591a) the maximum free alkali tolerance has been raised from 10 to 11%. The amendment to the specification for salt water soap (P-S-611a) allows for minimum anhydrous soap content of 38%, instead of 40% as previously.

The specification for mechanics' hand detergent has been changed by elimination of the paste type. Detergents for such use will now be only of the powder type. The specification covering special detergents for dishwashing machines (P-D-236) has been revised by eliminating the "liquid" type, formerly covered by this specification. The specification covering liquid and paste soap for automobile, floor and general cleaning (P-S-598) has been rather extensively revised. Former paragraphs covering raw materials, odor, solubility, etc., have been deleted entirely from the amended version. The sole requirement now is that the product be a uniform gel or paste soap made solely from vegetable base stock and potash, and shall conform to the detail requirements shown in the table below.

Copies of the amendments are available at nominal cost through the U. S. Government Printing Office, and those firms interested in the manufacture of soaps covered by specifications of the Bureau of Standards are advised to bring their files up to date at this time in view of the many recent specification changes. The specification summaries appearing in the 1943 edition of the *Blue Book*, which closed for press several weeks ago, do not unfortunately reflect this new series of amendments.

Detail Requirements, Soap for Auto, Floor and General Cleaning (P-S-598)

	Minimum	*Maximum*
Moisture (toluene distillation method) ..... per cent	.....	60
Total matter insoluble in alcohol ..... per cent	.....	1.0
Free alkali, calculated as potassium hydroxide (KOH) ..... per cent	.....	.1
Free acid, calculated as oleic acid ..... per cent	.....	.2
Alkaline salts, calculated as potassium carbonate (K_2CO_3) ..... per cent	.....	.2
Matter insoluble in distilled water ..... per cent	.....	.2
Chloride, calculated as potassium chloride (KCl) ..... per cent	.....	.5
Anhydrous soap, calculated as potash soap ..... per cent	40	.....
Total sodium compounds, calculated as Na_2O ..... per cent	.....	.5
Glycerol (per cent of anhydrous potash soap) ..... per cent	.....	.8
Iodine number (WIJS) of mixed fatty acids derived from the soap	100	.....
Rosin ..... per cent	.....	6
Sugar	.....	None

Glycerol Determination

A rapid method for determining glycerol in crude glycerine and in soap lyes has been developed in which the sample is evaporated first, after addition of ethyl alcohol, and second after addition of ethyl ether. The sample is weighed at the start and after drying. Wm. J. Govan. *Ind. Eng. Chem.*, Anal. Ed. 15, 260-1 (1943).

Bleaching Soap

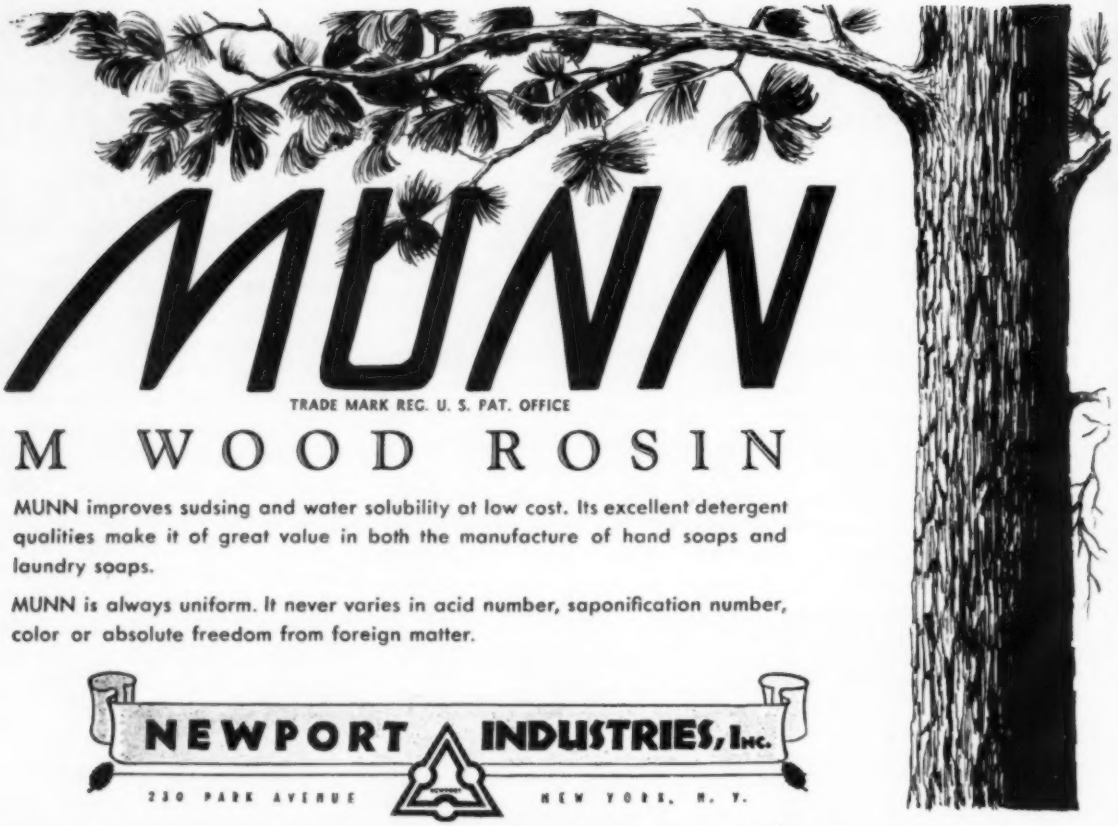
Soap containing rosin is not easy to bleach and sometimes darkens on standing. A useful treatment consists of crutching in 0.4 per cent of potassium persulfate and water, and then fitting strongly. About 0.04 per cent of zinc oxide may be added to increase the bleaching effect but some soapers prefer to leave this out. To use persulfate, mix with five times its weight of water, sieve and crutch slowly into the finished soap which has already been salted out and fitted strongly. Cover the pan. *Am. Perfumer* 45, No. 4, 63 (1943).

Distilling Cleaning Fluid

Many dry cleaners having machines equipped with both filter and still look upon distillation of the solvent as a chore to be done as infrequently as possible. Filtering does not remove soluble impurities such as fatty acids and mineral oils, so that as a general rule when cleaning average garments, the solvent in the system should be distilled after every 1,000 pounds of garments, or in any case after 2,000-2,500 pounds. *Dry Cleaning J.* of Canada 23, 13, 22 (1943).

Colored Shoe Creams

Shoe creams and floor waxes which are essentially aqueous emulsions of unsaponified waxes in turpentine oil, with water present as the dispersed phase, are made by adding a warm solution of wax and paraffin in turpentine oil to a warm aqueous suspension of the coloring matter containing a water-soluble dispersing agent. The solution and suspenare mixed with constant stirring. To the resulting emulsion is added a solution of an oil-soluble dispersing agent in turpentine oil. Carl Gentner, Chem. Fabrik. German Patent No. 719,115.



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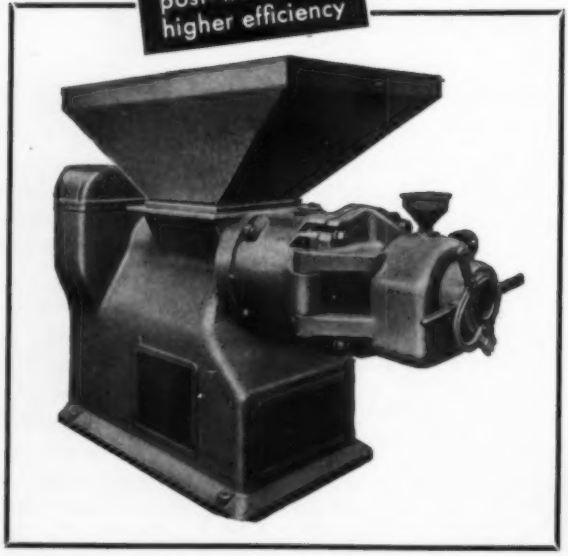

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PRODUCTS AND PROCESSES

Mild Soap

A mild non-irritating soap suitable for use on the face contains soaps of fatty acids having at least 12 carbon atoms and substantially free from soaps of fatty acids having less than 12 carbon atoms. At least a portion of the product consists of soaps from the residues of such oils as coconut, palm kernel, babassu, tucuum and cohune oils. The soaps have as good lathering properties as those made containing soaps from the natural oils of this class but are free from their skin-irritating properties. Bror J. Grondal and Harry M. Wylde, to Lever Bros. Co. U. S. Patent No. 2,300,416.

Germicidal Soap

Soaps capable of killing *Staphylococcus aureus* and other bacteria can be manufactured by adding to the soap 2,2'-dihydroxy halogenated diphenyl methane as the active germicidal ingredient. E. C. Kunz and Wm. S. Gump, to Givaudan-Delawanna, Inc. British Patent No. 545,648.

Soap in Mildew Proofing

A reasonably serviceable mildew-proofing method with readily available substances is to dip the cloth for 10 minutes in a bath of 0.5 per cent soap solution, and then into a second bath of 1 per cent cadmium chloride or copper sulfate solution for 30 minutes. Eric Hardy. *Rayon Textile Mo.* 34, 138-40 (1943).

Metal Detergent

An alkaline detergent for soft metal contains an alkali, and a soluble mercury salt in the proportion of about 1 per cent of the amount of alkali, to inhibit corrosion of the metal. An aqueous solution of the detergent should have a pH of about 10. A water-soluble salt of a metal of the groups consisting of barium and strontium, and of arsenic and antimony may also be used to inhibit corrosion. C. Schwartz, to Hall Laboratories. Canadian Patent No. 411,478, 411,479, and 411,480.

To Rework Soap Scrap

A charge of soap scrap and strong caustic soda should be melted down in the kettle and boiled for three hours. Excess alkali should then be neutralized with coconut oil or its fatty acids. After fairly energetic boiling, the soap is salted out with plenty of salt and the dark nigre drawn off. The kettle is again brought to the boil, 1 per cent of soap bleach added, and boiling continued for 2-4 hours. The soap is salted out once more, the nigre drawn off and boiling again started. This process is continued until the soap is light enough in color and it is obvious that graining can be carried out with every prospect of producing a commercially useful soap. *Am. Perfumer* 45, No. 4, 63 (1943).

Soap Replacent

A preparation for cleansing the skin is made from water-insoluble hydrated silicates made into a paste with substances swelling in water such as starch, its derivatives, or cellulose derivatives. Max Dittmer, to Wollner-W. German Patent No. 719,308.

Continuous Soap Production

In a continuous method of soap manufacture, fat is thoroughly mixed with a saponifying agent such as strong lye at about 185° F. for a short time. A graining agent such as a salt solution is added and the resulting soap-containing mixture passed to a centrifugal rotor for separation of the aqueous phase from the soap-containing mass. The soap mass and aqueous phase are discharged from the zone of centrifugation. The grained soap and unsaponified fat from the first saponifying stage are treated with a further quantity of saponifying agent and subjected to the same steps as before. After this the grained soap is fitted and nigre separated from neat soap by centrifugation. The nigre derived from the last separation is returned to the first saponifying stage in treatment of a further quantity of fat and saponifying agent. Ashton T. Scott, to The Sharples Corp. U. S. Patent No. 2,300,749,50-51.

Glass Cleaner

A glass cleaner contains water, propyl alcohol sufficient in amount to impart good wetting and spreading properties and drying characteristics, and a small quantity of a salt such as tetrasodium pyrophosphate and tetrapotassium pyrophosphate, to give a pH of about 10. M. T. Flaxman, to Union Oil Co. of California. Canadian Patent No. 411,832.

Shave Cream Bases

Compounds for use in oleaginous shaving creams include the dilauryl ether of diglycerol, the monocetyl ether of triglycerol, the monohexyl ether of mannitol, the monolauryl ether of mannitol, and the mono- or di-octyl ether of sorbitol. The method of producing such compounds is described. Benjamin R. Harris. U. S. Patent No. 2,302,121.

Anti-freeze

A non-corrosive anti-freeze liquid consists of alcohol with an inhibitor composed of a mixture of sodium nitrite and a member of the group consisting of sodium arsenite and sodium phosphite. Each of the constituents is present in an amount of 0.1-1.0 per cent by weight of the alcohol. H. Lamprey, to Carbide & Carbon Chemicals Lts. Canadian Patent No. 411,765.

Extended Soap

A soap is made to which is added a compound of phosphoric acid containing less water than orthophosphoric acid, and aliphatic amines or aliphatic amines substituted in the alkyl group. A. Bolz and R. Watzel. German Patent No. 719,734.

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OIL and FATS SHORTAGE POSES *NEW* PROBLEMS

Imported oils are disappearing. Salvage of fats is inadequate. Meat shortage further reduces supply of fats. Glycerine demands are climbing. Truly the soapmaker faces many a new problem—economic and technical. Among the latter is that of obtaining dependable chemicals for use in revised processing methods. There is help in the known dependability of HOOKER products. Among those for the soap and sanitary chemicals industries are:

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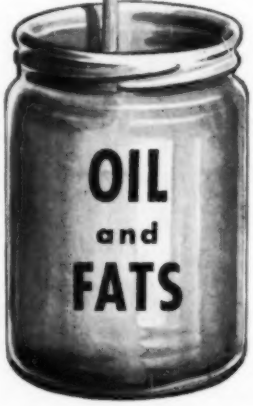
Benzoate of Soda — Benzyl Alcohol — Bleaching Powder — Caustic Soda — Chlorine — Monochlorbenzene — Monochlortoluene— Orthodichlorbenzene — Paradichlorbenzene — Sulfur Dichloride — Sulfur Monochloride — Trichlorbenzene.

In spite of war-created demands for unprecedented quantities of HOOKER chemicals, the rigid laboratory control which guards their quality is never relaxed. HOOKER quality is maintained in war as in peace.



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NEW PATENTS

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PATENT AND TRADE-MARK CAUSES

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Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine & Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,315,965, Insecticide, patented April 6, 1943 by William A. Knapp, New York, assignor to General Chemical Co., New York. An insecticide comprising as an active insecticidal ingredient a dihydroanthracene.

No. 2,316,194, Detergent, patented April 13, 1943 by Gilbert C. Toone and Lawrence H. Flett, Hamburg, N. Y., assignors to Allied Chemical & Dye Corp., New York. A detergent composition adapted for use as a shampoo comprising an alkali metal salt of a long-chain alkyl ester of sulfoacetic acid containing 12 to 18 carbon atoms in the alkyl radical thereof, and for each part by weight of the alkali metal salt of a long-chain alkyl ester three-fourths to ten parts by weight of a stabilizing agent composed of at least one compound which is an alkali metal salt of a monoalkyl ester of sulfoacetic acid containing 5 to 11 carbon atoms but not more than 9 carbon atoms in a straight chain in the alkyl radical thereof.

No. 2,316,219, Preparation for Cleaning Aluminum, patented April 13, 1943 by Robert H. Brown, New Kensington, and Robert B. Mears, Oakmont, Pa., assignors to Aluminum Company of America, Pittsburgh. A dry water-soluble aluminum-surface cleanser for use in aqueous solution, the cleanser being characterized by an acidic cleansing reaction in the solution and consisting substantially of an alkali metal fluoride and metaphosphoric acid, the latter being the major component and the principal active cleansing agent.

No. 2,316,220, Preparation for Cleaning Aluminum, patented April 13, 1943 by Robert H. Brown, New Kensington, and Robert B. Mears, Oakmont, Pa., assignors to Aluminum Company of America, Pittsburgh. A dry water-soluble aluminum-surface cleanser for use in aqueous solution, the cleanser being characterized by an acidic cleansing reaction in the solution and consisting substantially of an alkali metal fluoride and ammonium dihydrogen phosphate, the latter being the major component and the principal active cleansing agent.

No. 2,316,689, Soapmaking, patented April 13, 1943 by Robert Franklin Heald and Albert Lyle Schulerud, Nutley, N. J., assignors to Colgate-Palmolive-Peet Co., Jersey City, N. J. The process of making bars and cakes of soap which comprises mixing soap with borax in such proportion that borax is present in an amount at least about 25 per cent of total borax and anhydrous soap in the mixture, milling the mixture, and forming bars and cakes therefrom.

No. 2,317,297, Dentifrice, patented April 20, 1943 by Allen Llewellyn Omohundro, Wilton, and Emil Conrad Fanto, Fairfield, Conn., assignors to McKesson & Robbins, Inc., Bridgeport, Conn. A dentifrice comprising an oxygen-supplying component chosen from the group consisting of peroxides, percarbonates, perborates of the alkali and alkaline earth metals and a complex compound containing hydrogen peroxide with salts of the alkali or alkaline earth metals which reacts with the water present during dentifrice use to liberate oxygen with the formation of an alkali; boric acid; and a solid straight chain hexahydric alcohol which will combine with the boric acid in the presence of the water present during dentifrice use to form a reagent of substantially greater acidity than the boric acid, the boric acid and alcohol being present in proportions appropriate to produce a predetermined alkalinity in the products of reaction of the reagent with the alkali.

No. 2,317,378, Antiseptic Materials, patented April 27, 1943 by Benjamin R. Harris, Chicago. Antiseptic materials comprising higher molecular weight aliphatic alcohol polyesters of aliphatic amino poly-carboxylic acids.

No. 2,317,741, Spray Composition, patented April 27, 1943 by Clarence D. Dolman, Chelan County, Wash., assignor to Hercules Glue Co., Ltd. The method of preparing an insecticidal material comprising dissolving a mass of naphthalene and about 10 per cent of the mass of a fatty acid in a mutual solvent therefor and then dispersing the so formed solution throughout a mass of about equal weight of a dry finely divided adsorbent carrier material.

No. 2,317,765, Fungicidal Composition, patented April 27, 1943 by William F. Hester, Drexel Hill, Pa., assignor to Rohm & Haas Co., Philadelphia. A fungicidal composition having as an active ingredient a salt of an alkylene bisdithiocarbamic acid.

No. 2,317,908, Deodorant, patented April 27, 1943 by Roy I. Grady, Wooster, Ohio. A deodorant composition comprising natural marl and lime.

Method for Iodine Number

The combination of mercuric acetate and Wijs solution provides a rapid iodine-number method suitable for use on conjugated fats.

A rapid iodine-number method involving the use of easily prepared and stable solutions comprises the combination of mercuric acetate with Hanus solution. This reagent gives values identical with those obtained in the standard Hanus method on nonconjugated fats, with the exception of castor oil. On conjugated fats the method is unsatisfactory. Frank A. Norris and Robert J. Buswell. *Ind. Eng. Chem.*, Anal. Ed. 15, 258-9 (1943).

Detergent Test Soil

In a study of standard soils for use in detergency tests, it was decided that carbon black, mineral oil and vegetable oil in carbon tetrachloride gave the most consistent results. However, the method and conditions of applying the soil to the fabric caused more variation than a considerable change in the soiling formula or concentration. A machine is described which was devised to apply the soil in a standard manner to the test fabric. B. S. Van Zile. *Oil & Soap* 20, 55-7 (1943).

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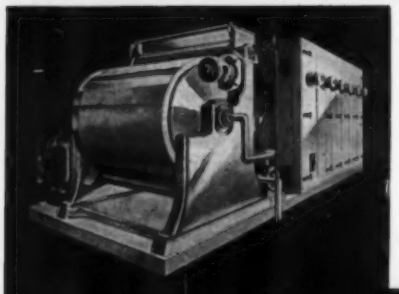

In producing flakes for granulated soaps, toilet cakes or packaging, high speed output can often be an item of great saving. With the New Proctor Flake Soap System, from the hot liquid soap in the kettle or crutcher to the dried flakes requires only 6 to 14 minutes and capacities may be obtained from 750 to 6000 lbs. per hour, according to flake thickness, character of soap, etc. At this stepped-up production, quicker deliveries are assured and there are tremendous savings in floor space and equipment. Complete details are contained in a new 16-page illustrated catalog that is yours for the asking.

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NEW PROCTOR *Flake Soap* SYSTEM

EQUIPMENT AND BULLETINS

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

948—Md. Insecticide Report

The official quarterly report on Agricultural Insecticide and Fungicide Materials of the Inspection and Regulatory Service, College Park, Maryland, has just been issued. The publication contains the official report of the Inspection and Regulatory Service covering enforcement of the current Insecticide and Fungicide Law from January 1, 1942 to January 1, 1943. In that time 112 companies registered 887 products of which 409 were collected by official inspectors. Of these, 385 samples were chemically analyzed to substantiate label representations. Of 91 unlicensed materials found, 75 were registered following notification by the department. The remaining brands were withdrawn from the market. The publication lists companies having products licensed in 1942, and the data on products registered during the period.

949—Army Packing Manual

A loose-leaf manual, "OQMG Packing Specification No. GS-1," of specifications for packing and crating of general Quartermaster Corps supplies both for domestic and export shipment has been compiled and published by the Quartermaster Corps, the War Department announces. While it will not be available for general distribution as a whole, specific sections of it will be furnished to contractors and manufacturers who supply the items covered. Conservation of packing materials, shipping space, elimination of repacking and rehandling, and insuring the arrival of supplies in perfect condition at their final destination are the reasons given for the issuance of such a manual.

950—Sanitary Supply Catalog

Chemical Manufacturing and Distributing Co., Easton, Pa., has just issued a 48-page catalog and price list. In addition to illustrating and describing soaps and sanitary chemicals and their uses, interior and exterior plant views are shown. Copies are available on request.

951—Rohm & Haas Organ

Synthetic insecticides — the "Lethanes," and synthetic detergents —the "Tritons" are discussed in articles appearing in the May issue of The Rohm & Haas *Reporter,* house organ for that company. In writing of "Synthetic Insecticides," C. J. Dumas traces the development of the use of rotenone and the Rohm & Haas synthetic "Lethane" group from their early beginnings in the United States up to the present day. He shows how, through the research and development of the "Lethanes," insecticide users are currently able to get along with greatly curtailed amounts of rotenone. Dr. D. H. Powers explains in his article "The Tritons" the place of synthetic detergents, emulsifying, wetting and dispersing agents and their relationship to soap for these purposes. Copies of the *Reporter* may be had by writing Rohm & Haas.

952—Dow Insecticides

An extensive report on the new "dinitro insecticides," produced by Dow Chemical Co., Midland, Mich., for red mite control on apple foliage, was contained in a recent bulletin of the New York State Horticultural Society. The new insecticides, for use either as a spray or dust, are marketed under the designations "DN-111" and "DN Dust D-4."

"Thorough applications of either form," says the Bulletin, "result in killing practically all of the hatched stages and many of the eggs. Apparently this dinitro compound possesses considerable residual effect with the result that many young mites that hatch from untreated eggs, and those from eggs that did not receive lethal amounts of the toxicant, are killed as they move about."

Usually one thorough application suffices for a month or more, according to the report. However, in cases of heavy infestation a second application a week or ten days after the first may be desirable. Cautioning against use of the new compounds in combination with oils and strongly alkaline materials under certain conditions, the Bulletin states that the dinitro products may be safely used in combination with arsenate of lead during the Summer.

953—Industrial Housekeeping

R. M. Hollingshead Corp., Camden, N. J., tell the story of their plan for "industrial housekeeping" in a 16-page booklet on that subject. Copies are freely available on request.

Tighten Oil Control

Edible oils allocated to manufacturers and not used for the purpose specified in the allocation will revert to inventory and remain there until further authority is granted, the War Food Administration announced recently. This announcement came in the form of an amendment to food distribution order 29, which became effective May 3, and regulates the use and distribution of peanut, soybean, cottonseed and corn oils.

Lawson Elects Two V.-Ps.

Frank J. Crowley and David L. Cable have been elected vice-presidents of W. B. Lawson, Inc., Cleveland, Ohio, sole sales agent for Ferro Drier & Chemical Co., producers of metallic soaps as driers. W. B. Lawson, Inc., is distributor for American Potash and Chemical Co., Lindsay Light and Chemical Co., Merck & Co., Philadelphia Quartz Co., Stauffer Chemical Co., Tennessee Corp., and Wyandotte Chemicals Corp.

KRANICH

WAR shortages are bringing about many changes in our line of soaps for jobbers and converters. Fortunately, our many years of experience in the manufacture of quality soaps enable us to make these changes with the minimum inconvenience to our customers. Every possible effort is being made to maintain the quality of KRANICH soaps.

To protect our regular customers we are filling orders on many hard-to-get products on the basis of former purchases. We know you will appreciate the fairness of such a policy.

Plan to consult KRANICH regarding your supply problems. — We may be able to help.

Shampoo

Liquid Castile Soap

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U. S. P. Castile (Only)

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Potash Soaps

Soft Potash 40%
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Caleptone D.

A new and modern fixative because it adds life and body to a compound without changing its basic odor note. Caleptone D has a neutral odor character and high co-solvent action.

Sample upon request.

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ASTM Soap Meeting June 7-8

The Advisory Board of the American Society for Testing Materials has called a meeting of Committee D-12 on soaps and other detergents to be held in the Hotel New Yorker, June 7 and 8. The program of committee meetings follows:

MONDAY, JUNE 7, 1943

	Subcommittee	*Section*	*Name*
9:30-11:30 a.m.	II	E	Sulp. Detergents—Specs.
9:30-11:30 a.m.	IV		Publications
11:30- 1:00 p.m.	I	A	Soap—Methods
11:30- 1:00 p.m.	I	B	Sulp. Oils—Methods
2:00- 5:00 p.m.	II	A	Textile Soaps—Specs.
2:00- 5:00 p.m.	II	C	Straight Soaps—Specs.
3:00- 4:00 p.m.	I	C	Dry Cleaning
3:00- 4:00 p.m.	II	D	Dry Cleaning
4:00- 5:00 p.m.	Advisory Committee		

TUESDAY, JUNE 8, 1943

9:00-11:00 a.m.	II	B	Built Soaps—Specs.
9:00-11:00 a.m.	II	G	Metal Cleaners
11:00- 1:00 p.m.	III		Definitions
11:00-12:00 noon	II	D	Spec. Detergents—Specs.
12:00- 1:00 p.m.	I	F	Spec. Detergents—Methods
1:00 p.m.	LUNCHEON		
2:00 p.m.	Subcommittee Meetings and General Meeting		

Paper—History of Synthetic Detergents—C. J. Sunde
Paper—Studies on Synthetic Detergents—J. C. Harris

Canada's Toiletries' Value Up

Production of the toilet preparations industry in Canada was valued at $10,155,763 in 1941, compared with $8,305,916 in 1940 and $6,918,573 in 1939, according to the Dominion Bureau of Statstics. In the annual census of manufacturing establishments in Canada the operating firms are arranged in a number of industrial groups in which factories are classified according to their main products. Under this arrangement the toilet preparations industry includes all establishments which are occupied chiefly in making perfumes, toilet waters, face creams, toothpastes, etc. However, this industry accounts for only about 70 per cent of the Canadian output of toilet preparations, as a number of concerns in other industries make this class of goods as a secondary part of their business.

In 1941 a total of 88 establishments were included in this industry. Output from these concerns totalled $10,155,763, including $8,103,316 for toilet preparations and $2,052,447 for other products. Capital employed in manufacturing operations amounted to $7,914,670; employees numbered 1,568 and salaries and wages amounted to $1,832,497. The total production of toilet preparations in Canada from all industries amounted to $11,954,959 at factory prices in 1941. In 1940 the comparative value was $9,651,786 and in 1939 it was $8,194,442.

—— • ——

Soaps at Safety Show

New soaps and protective creams for munitions makers and women war workers were featured by exhibitors participating in the Safety Exposition held in connection with the Midwest Safety Conference in Chicago May 4 to 6.

G. H. Packwood Mfg. Co., St. Louis, displayed their "Formula T-92," a powdered skin cleaner for control of skin irritations suffered by workers who make T.N.T. explosives. Also on hand was the familiar line of "Pax" industrial soaps, and dispensers. Chas. E. Crooks, Chicago district sales manager, who was in charge, said the company still has a stock of metal dispensers on hand. J. D. Compton, Chicago, assisted Mr. Crooks at the booth.

Sugar Beet Products Co., Saginaw, Mich., made their first public presentation of a new powdered hand soap, "S B S-20," developed especially for women war workers. Corn meal used in the formula, according to F. A. Newberry, Chicago representative, is ground "almost as fine as corn starch," making the product usable on feminine faces as well as their hands. It is also said "not to remove nail polish." A free supply is being offered for testing in any industrial establishment.

West Disinfecting Co., Long Island City, N. Y., displayed "Lan-O-Kleen" powdered hand soap, sulphonated oil soaps, protective creams and other hand cleaners, formulated to control particular hazards in war plants. Also shown was "Cutole," an oil soluble disinfectant, and "Westamine," an odorless disinfectant. R. O. Jackson, Chicago district manager, superintended the display.

Tarbonis Co., 1220 Huron Rd., Cleveland, showed their new "Tarbonis" cream for the first time to a safety group. The product was developed at the Johns Hopkins Pharmacy where it has been used eight years, but production on a commercial scale was started only about a year ago, according to I. P. Metzenbaum, special representative from Cleveland. Ingredients are under strict priority control but when the war is over, he stated, the company plans an extensive promotion. J. R. Fox, midwest sales manager, Chicago, cooperated with Mr. Metzenbaum in the presentation.

Walter G. Legge Co., New York, displayed their non-slip floor polishes and other floor maintenance products for preventing accidents in industrial plants, gymnasia, institutions and other places. J. P. Glenn, Chicago sales manager, in charge, said the company is planning a national advertising campaign which will be launched shortly.

Oil-Dri Co. of America, 5036 N. Ravenswood Ave., Chicago, exhibited "Oil-Dri," a granulated compound for use in absorbing oil and grease on floors of factories, service station grease pits, paint shops, railroad repair shops, public buildings, home furnace rooms and elsewhere. The product, it is claimed, is not inflammable, does not scratch or discolor, is easy to use and efficient in preventing falls on slippery floors. J. G. Willis, sales manager, was in charge.

Alkyl Sulfate from Petroleum

Petroleum is becoming increasingly important as a source of organic compounds, some of which have previously been derived from other raw materials, and others which have not before been available commercially. Among the most recent and important developments in the organic field is the production from petroleum by-products in England of a new surface-active compound which possesses many of the characteristic properties of soap. Over a period of years the Shell Group has carried out intensive research in this field which has reached fruition in the construction of a large plant for the production of the sodium salts of the higher secondary alkyl sulfates. The product is in free supply and is marketed under the name of "Teepol."

The manufacture of alkyl sulfate from petroleum by-products involves the cracking of the base material to produce a mixture of long-chain olefines. This is fractionated and a selected cut corresponding to the C_{10}-C_{18} range is sulfated and neutralized under carefully controlled conditions, followed by special extraction and purification methods, to give a product of high purity and efficiency.

For a large proportion of surface-active compounds, the basic raw materials are the natural fats. The new product is the first example of a synthetic detergent of the alkyl sulfate type (fatty alcohol sulfate) to be manufactured on a commercial scale in England from petroleum by-products, constituting an important contribution to the national economy in fats.

"Teepol" is soluble in water and is ionized in solution to give a large anion and small cation. It does not hydrolyze, is unaffected by hard water and is stable over a wide pH range. For many purposes in the textile and laundry industries, the new product can replace soap completely; in other cases partial replacement of soap results in increased efficiency. It has wide applications in industry as a detergent. *Chemistry and Industry* 62, 112-13 (1943).

X-ray Soap Studies

The x-ray studies of soap show that every soap exists in a large number of forms, only some of which are typically crystalline or liquid crystalline. The alpha form of sodium stearate, originally reported by Thiessen and Stauff, has been re-examined and the data found to be in general conformity with those of previous investigation. Re-examination of their monoclinic beta form of sodium stearate obtained by heating the rhombic form above 54° C., yields a different set of data. A new, more stable, monoclinic form of sodium stearate has been examined and designated as the gamma form. James W. McBain, A. deBretteville, Jr., and Sydney Ross. *J. Chem. Physics* 11, 179-83 (1943).

◆

Soap Stock Purification

Vegetable oils are alkali-refined to give a saponified mixture consisting essentially of soap and substantial amounts of other detergent compounds resulting from the thermal decomposition of protein materials originally present in the soap stock. The purified soap stock is practically free of decomposable protein material. B. H. Thurman, to Refining, Inc. U. S. Patent No. 2,299,603.

◆

Chemical Exposition Dec. 6-11

The 19th Exposition of Chemical Industries will be held this year the week of December 6 to 11 at Madison Square Garden. The Exposition floors of Grand Central Palace, site of the Exposition in previous years, have been taken over by the Army. At the Garden all exhibition space will be on one floor. However, this year only half the space is available that was provided by Grand Central Palace last year.

◆

Laundry Soap Substitute

A washing agent suitable for use at 50-60° C. consists of 100 parts of xylene, 100 of infusorial clay, 100 of kaolin and 50 of soda ash. The soda-soaked laundry is washed with 1 per cent of the powder. *Chem. Listy* 35, 67-8; through *Chem. Abs.*

Lower Hydrates of Soap

Relations between certain forms of soap suggested that the systems consists of two components. Heating tests indicated that the *alpha, beta* and *gamma* forms in sodium stearate have the formulas, NaSt, ½ H_2O, NaSt, ⅛ H_2O, and NaSt. X-ray powder patterns are reproduced for the lower hydrate and the anhydrous form. The *alpha*-sodium palmitate is also a hemihydrate. M. J. Buerger, L. B. Smith, A. DeBretteville, and F. V. Ryer. *Proc. Natl. Acad. Sci.* U. S. 28, 526-9; through *Chem. Abs.*

◆

Rayon Mildew Protection

Rayon yarn as manufactured is contaminated with or possesses inherent organisms similar in effect to that of mildew and capable of causing tendering and embrittlement of the yarn. The same organisms are found on rayon yarns from various sources and are specific digesters of regenerated cellulose. The organisms isolated are of the species Penicillium and Aspergillus and are highly heat resistant.

The use of mycotic agents will markedly lessen the degree of tendering. It is advised that mycotic agents be used at all times in wet processing of rayon and under extended storage conditions. Incorporation of a mycotic agent in rayon during the manufacturing process should be considered. W. S. Marsh and A. E. Duske. *Rayon Textile Mo.* 24, 242-4 (1943).

◆

Tall Oil Iodine Number

The iodine numbers of rosin acids, unlike fatty acids, vary widely with the amount of excess iodine used, the time of absorption, and the temperature during the reaction period. Tall oil exhibits similar but somewhat smaller variations in Wijs iodine values. Additional restrictions and some modification in the standard conditions of the Wijs method permits reproducible results. The degree of restriction depends upon the reproducibility required. Conditions are described for a reproductibility of 1 per cent in the iodine number of tall oil. P. E. Chapman, R. Hastings, and A. Pollak. *Oil & Soap* 19, 214-16 (1942).

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Insecticides • Disinfectants • Moth Products
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NEW ISOPROPYL ALCOHOL DEODORIZER
with ADDED FLOWER FRAGRANCE

Rose Isoblend	Jasmin Isoblend	Violet Isoblend
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Honeysuckle Isoblend	Pine Needle Isoblend	Orange Blossom Isoblend
Apple Blossom Isoblend	Spice Bouquet Isoblend	Eau de Cologne Isoblend

If you are using Isopropyl Alcohol in place of Ethyl Alcohol, you will be interested in the new Isoblend Floral Odors. This new product deodorizes the Isopropyl Alcohol odor and at the same time, adds a lovely flower note. Isoblend Floral Odors enables you to make a finished toilet water, colored any shade you desire, at an astonishingly low price.

FOLLOW THIS FORMULA
FOR A FINISHED TOILET WATER

Isoblend (any floral odor) 2 ozs.
Isopropyl Alcohol 64 ozs.
Water — enough to make 1 gallon
Color as desired

Write for free working samples and prices of any Isoblend Floral Odors

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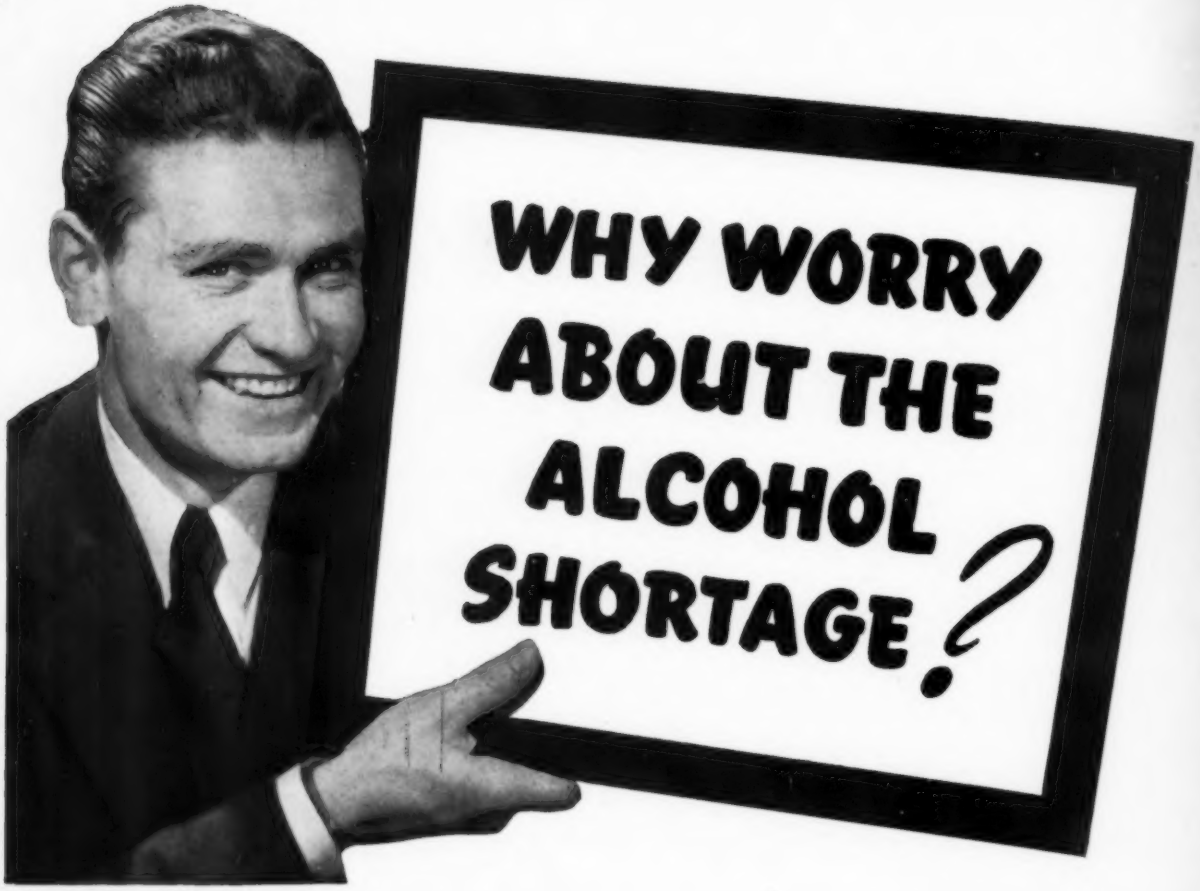

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Quality

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Ten years ago, Anchor Hocking engineers developed the world's first really lightweight glass containers for commercial use. As a result, new and important features were added to the unsurpassed advantage of transparency—lower freight charges, extra strength, less wear and tear on equipment, lighter and less expensive shipping cartons, less weight on merchants' shelves and many other sales, merchandising and manufacturing benefits.

This great "first"—one of many that have earned for Anchor Hocking its position of leadership—was a quart capacity salad dressing jar, lighter by 3½ oz. Since its development, Anchor Hocking has created, for drugs, chemicals and pharmaceuticals, ½ pint containers up to 2 oz. lighter, pints up to 2½ oz. lighter and quarts up to 3 oz. lighter.

R. E. WALKER, one of Anchor Hocking's ablest and most popular men, has been a member of the Anchor Hocking family for 37 years.

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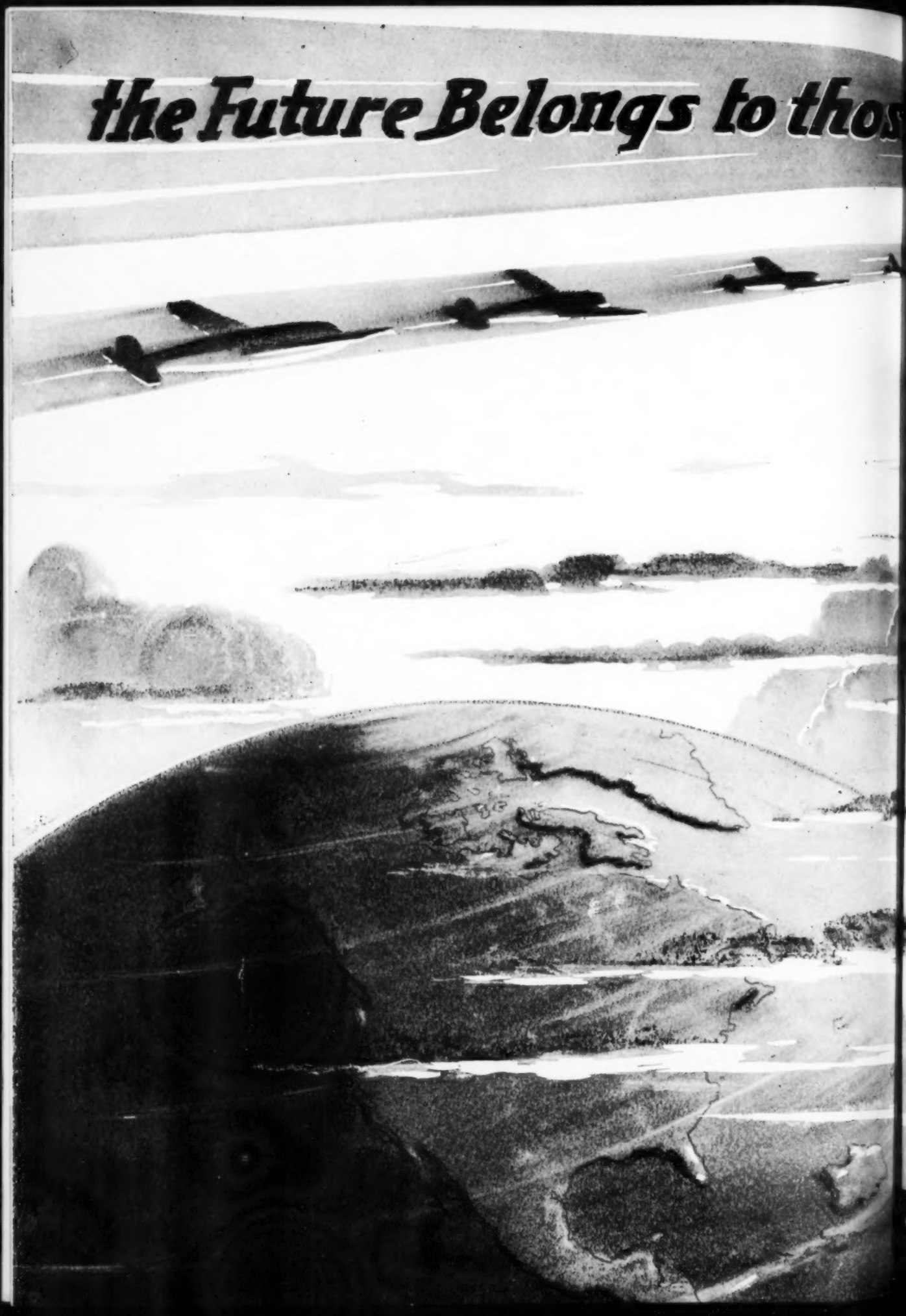
the Future Belongs to thos

ho Prepare for it

Insecticide manufacturers have more than their share of difficulties in obtaining raw materials. Here at Powell's we are doing everything humanly possible to alleviate these conditions. But with the bulk of pyrethrum supplies earmarked for the all-important purpose of controlling malaria and typhus among our armed forces, and only a limited quantity available for agriculture, the problem is a difficult one and stocks must necessarily be apportioned in accordance with the importance of their end uses.

But the time will come when we will again be able to "deliver the goods"—basic insecticide ingredients that will be superior to anything offered heretofore. For example, we will have available very highly concentrated pyrethrum extracts of high stability. These products, now in production at our plant, contain 20% Pyrethrins and still higher concentrations when desired. These new processes retain the advantages of our old Basic Pyrethrum Extract and give the products maximum stability and clarity. Government requirements for these highly concentrated Pyrethrum extracts preclude the possibility of offering them generally for the present, but they have unusual possibilities for the future. We will also be able to supply Pyrin in tremendously increased concentrations when the present restrictions are removed.

These and other new developments are continuing daily in our laboratories, — so look ahead with Powell, for out of this wartime imperative need will come new-found methods and products that may dictate entirely new and different forms of insecticide merchandising. — Keep in touch with Powell.

JOHN POWELL & CO., INC.

118 EAST 32nd STREET, NEW YORK CITY

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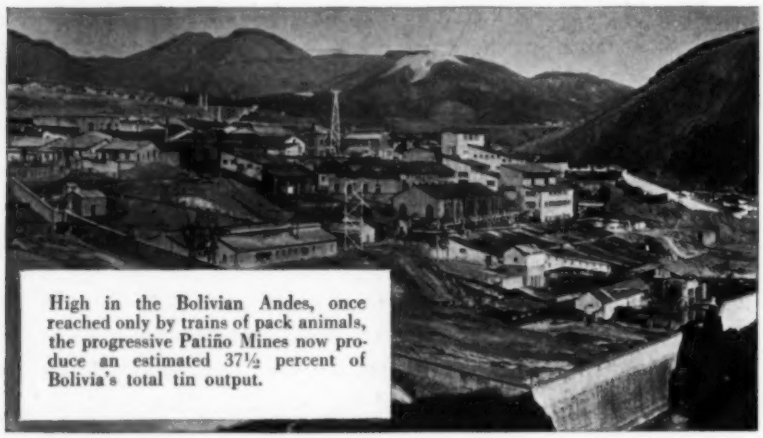
REG. U.S. PAT. OFF.

"KILLING POWER—that's the thing!"

INSIDE NEWS

JUNE PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1943



High in the Bolivian Andes, once reached only by trains of pack animals, the progressive Patiño Mines now produce an estimated 37½ percent of Bolivia's total tin output.

Bolivia Replaces Far East as Source of United Nations Tin

Simon I. Patiño Pioneered Application of Modern Methods to Tin Mining

Tin for containers and tin for the engines of war is available to the United Nations today despite the loss to the Japanese of the tin producing areas of the Far East. Thanks to the determination of Simon I. Patiño to make a real thing out of tin mining in Bolivia, his native land, this Andean Republic has become almost our only source of this strategic metal. It was back in the 1890's that Patiño undertook the colossal job of making the tough, rock-bound Bolivian Andes yield up its tin ores.

Without Bolivia's production of tin, the metal would now be a rare and precious commodity. But the land-locked Republic in the Andes has responded to its opportunity. Whereas in 1939 it produced 27,215 long tons of fine tin, its output this year has started at the level of a prospective 44,000 long tons, and every effort is being made to increase production so that at least the minimum needs of the United Nations will be supplied.

Wresting tin from the mountains is no easy task. Indeed, the difficulties of transportation and the hardness of the rock in which the tin is found have greatly handicapped the mining of the metal in Bolivia when compared to the more easily worked deposits in the Far East. Maine's "stern and rock-bound coast" is lush meadowland compared with the Altiplano, as the interior plateau of the Bolivian Republic is called.

Until Mr. Patiño introduced modern machinery and engineering, tin mining remained primitive, and the output of Bolivian tin was insignificant. But as progress came to the Patiño mines it spread to other mines in Bolivia.

Today the mines of Patiño Mines and Enterprises Consolidated Inc. produce approximately 37 percent of Bolivia's entire output of tin. A tracery of 300 miles of driftways has been bored into Llallagua Mountain. A miniature railway system follows the main drifts, and trolley locomotives haul the ore trains out of the mines to a modern mill where an 80 percent concentrate is produced. Power is provided by a dam and hydro-electric plant in the mountains at Lupi Lupi, and the diesel engines in use there are known as Patiño-type diesels because they have been especially designed for high altitudes.

It has been the traditional practice of Bolivian mines to ship tin concentrates to England for reduction into the "fine tin" of commerce. Although this tin thus goes into the pool available to the United Nations, the United States—with a large consumption of the metal but no production—decided to create as a war measure a more direct source of tin. It therefore negotiated with other Bolivian producers to take all their production; and it has built a smelter at Texas City, Texas, to process these concentrates. As a result of these timely negotiations, nearly half of the free world's production of tin is now processed in the United States.

Some tin is also obtained from the Cornish mines of the British Isles, which date from the Roman invasion of England, from mines in Nigeria, Africa, and other areas available to the United Nations. But the tin extracted from these mines cannot compare with the total tin output of Bolivia. (358)

Compound for Treating Incendiary Bomb Burns

Copper oleate is an ingredient of a recently developed British compound for treating burns due to phosphorus incendiary bombs. The compound is prepared by dissolving the copper in trichloroethylene and sulphonated castor oil.

In use the oil-soluble copper compound is applied by swabbing, pouring, or immersing burned areas. After inactivation of the phosphorus, the area is washed with tepid water, contaminating material swabbed off and an excess of sodium bicarbonate applied. Once acidity is neutralized, accepted methods of antisepsis and mild tanning are applicable for treatment of the burn itself. (359)

Ethylene Gas Speeds Grain Ripening

Final ripening or curing of grain, the result of enzyme action, can be accelerated by treatment with ethylene gas diluted with several times its volume of air. Application of this treatment to underripe combine-harvested wheat immediately after harvesting made it possible to store a large quantity of the wheat in bins without excessive heating, whereas untreated grain spoiled from bin burning in less than 10 days.

When ethylene was applied to shelled corn from freshly harvested ears in the same concentration and manner as were used with wheat, it had practically no effect. (360)

Yam Bean Has Insecticidal Value

Possibilities of the yam bean as a replacement material in the manufacture of insecticides are currently under intensive investigation. In preliminary work samples of seeds from Central and South America and from China have been tested and all have shown marked toxicity. Several thousand acres of the plant are reported to be under cultivation in Mexico, but in other Central American republics cultivation is limited to small plots by local gardeners.

If any substantial supplies of yam beans become available, and if further tests bear out their insecticidal value, they may serve during the 1944 season as a valuable adjunct to short supplies of pyrethrum and rotenone. (361)

* * * * * * *

Blackening of potatoes which often occurs after cooking can be reduced or prevented entirely by storing potatoes at 100 deg. F. for 3 or 4 days immediately after digging and then removing them to normal storage. After such treatment the tubers remain in good edible condition. Blackening is also decreased by boiling the potatoes in acid solutions but in most cases is increased by boiling in alkaline solutions. (362)

NATIONAL CAN

PLANTS: NEW YORK • BOSTON • BALTIMORE • CHICAGO • HAMILTON, OHIO • FORT WAYNE, INDIANA

pH Factor Important In Canned Foods

There appears to be a direct correlation between pH and the growth of staphylococcus aureus in canned foods. When cans were inoculated with the organism and incubated for periods up to 60 days at 71.6 and 89.6 deg. F., no growth occurred in the acid foods, such as tomato juice. In contrast, there was some growth in the semi-acid foods—asparagus, spinach and string beans. And growth occurred in the low-acid groups—beans and corn and shellfish and salmon. (363)

One Reason Our Bombardiers Don't Miss!

CHARGE SPOTTING ASSEMBLY—Inserted in the tail fin of practice bombs, the black powder contained in the charge is ignited when the missile hits the ground. By photographing the resulting puff of black smoke, the bombardier is able to record hits and misses. These containers are manufactured by National Can Corporation for the Army Air Forces. (364)

Ideal Fumigant For Dairy Products

Methyl bromide fumigation is suitable for dairy products. It is toxic to all forms of insect life, including cheese mite and cheese skipper, weevils and roaches and their eggs. It is effective at low temperatures, whereas many other fumigants become ineffective when the temperature drops.

Thanks to its penetrating power, it can be used satisfactorily in vaults, coolers, curing rooms, warehouses or factories tight enough to confine gas. No off-tastes or off-odors are introduced into the dairy products so fumigated. (365)

Technical Topics

"DRY DEATH" FOR INSECTS—A new chemical dust, inert, insoluble in water, non-poisonous and free from danger of silicosis, has been developed in England to kill insects in grain and cereals. A fine, white inorganic powder, it does not adhere to the grain but kills the insects by desiccation—drying them to death. (366)

ALCOHOL FROM SEAWEED—Experiments in Eire with laminarin, a seaweed product, show a high content of glucose and alcohol. Yields of 13 to 16.9 gallons of ethyl alcohol per ton of air dried weed have been obtained. (367)

FLOWER ABSOLUTE FROM COFFEE—The Puerto Rico Agricultural Experiment Station has successfully extracted a flower absolute from coffee-flowers, at a cost comparable to other absolutes formerly imported. Coffee-flower odor is delicate and desirable in perfumery. (368)

AQUEOUS RUBBER CEMENTS in emulsion form are declared to offer advantages in the manufacture of leather and similar materials. Soap is used as a stabilizing agent in the emulsions. The aqueous cements are said to have the advantages of being non-inflammable and avoid the odor and toxicity problems of cements containing organic solvents. (369)

NEW PROTEIN—A new crystalline sulphur-containing protein has been discovered which is very toxic to yeasts and certain bacteria but harmless to small animals. Discovered by chemists of the Department of Agriculture and named "purothionin", the substance is expected to have uses as a food preservative and as a medicinal agent. (370)

pH IN MEAT—The pH in cured pork has a direct influence on the color development in the meat. With a pH below 5 it is impossible to obtain proper color fixation. Moreover, the meat becomes less tender with decreasing pH; moisture loss or shrink increases and the flavor is sour. A pH range of 5.2 to 6 seems best for the meat. (371)

MEAT—A method has been developed to improve the flavor and tenderness of beef and lamb carcasses by covering them with a brine-moistened cloth and insulating bag prior to chilling. (372)

CARMELIZATION PREVENTIVE—Carmelization in orangeade, lemonade, and similar synthetic citrus powders packed in cans and containing a high proportion of citric acid can be prevented by using anhydrous citric acid or substituting glucose for sucrose in the preparation. It was also found that carmelization does not occur, in the absence of added water, if d-tartaric acid is substituted for citric acid. (373)

BUTYLENE has been shown by Russian investigations to have a stimulating effect on the speed of growth of fruit trees bringing them to fruition far faster than when it is not employed. Application of butylene was recommended especially for those areas where the growth season is too short to permit the full maturing of trees due to inclement weather. (374)

PECTIN—As a substitute for water-soluble gums which are imported, pectin has shown promise in certain cases as an emulsifying and thickening agent in foods and pharmaceuticals. Dextrin from grain starches can fill in for some of the natural gums, especially acacia. (375)

COLD TEST—A dye test shows in one minute whether a cold is caused by infection or allergy, according to a report before the American Public Health Association. About 12% of children suffering from cold and bronchial ailments are subject to an allergy rather than an infection. (376)

GLYCERIDE OILS can be stabilized against oxidative deterioration by the addition of a small quantity of phosphorus derivative of polyhydroxy aromatic compound, with subsequent heating to more than 250 deg. F. under less than atmospheric pressure. (377)

FRUIT FLAVORING AND COLORING—Natural aromatic fruit flavoring and coloring are stabilized against oxidative deterioration by the addition of hydroquinone toluhydroquinone, catechol and resorcylaledhyde. (378)

ALCOHOL FROM FLOUR—Alcohol is now being produced from flour in a large American distillery. The plant formerly employed blackstrap molasses imported from Cuba. (379)

Every effort will be made to furnish additional information on these articles. Where such information is not obtainable, we will refer inquiries to the original source of the article. Write to National Can Corporation, 110 East 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

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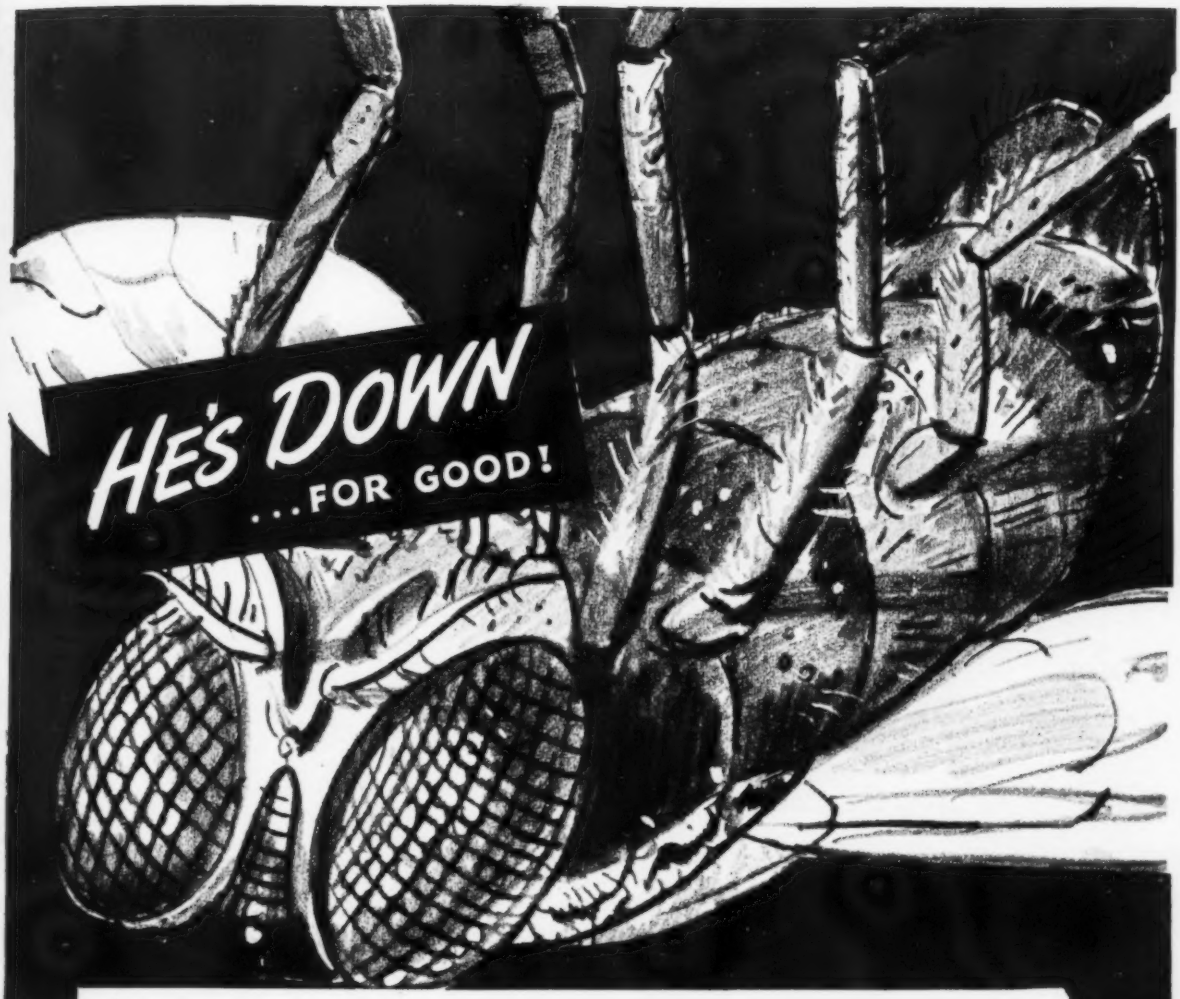

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concentrates . . .

MAIN SOURCE OF INDUSTRY'S INSECTICIDE NEEDS

MORE than a year has passed since the first of the wartime restrictions was imposed on rotenone and pyrethrum. In the interval, while the supply of these botanicals for civilian use became smaller and smaller, the supply of LETHANE insecticide concentrates has greatly increased. Thus, these domestically produced synthetic products greatly eased the critical supply situation for the industry.

A year ago, we were hard-pressed to meet the demands for LETHANE concentrates. Over the months following, our production capacity was gradually increased. Now a further expansion has been completed, which will make available substantially larger amounts of these first and foremost synthetic organic insecticides.

LETHANE 384 and LETHANE 384 SPECIAL provide a major portion of the insecticidal ingredients in household, livestock and industrial sprays. In addition, large quantities of LETHANE 384 and LETHANE 384 SPECIAL are being supplied for primary war purposes. LETHANE 60 is offsetting the severe shortage of botanicals in sprays and dusts for the protection of vital food crops.

The development and widespread use of LETHANE products is another example of how American peacetime research is putting American raw materials to work in place of restricted imported products.

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This menace is in for a big surprise

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Insect control! Funny thing for an electrical manufacturer to be concerned with?

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With this device, soldiers in combat zones can destroy every deadly insect in barracks, dugouts, captured enemy positions, in an amazingly short time—with complete safety to themselves. Cargo and transport planes returning to America from malaria-infested areas can be rid of disease-laden insects *in flight*, long before there is any danger of bringing these unwelcome stowaways into the United States.

Is this so important? A high military authority has said that *this new Westinghouse device may save more American lives than any other single invention of the war to date.*

And it is only one of many Westinghouse products that are helping to bring Victory nearer. In addition to all the electrical products we are making—and there are literally thousands of them—we are turning out such things as precision Army binoculars, huge steam turbines and reduction gears for ships of the Navy and Merchant Marine, plastic linings for Army helmets, control pulleys for aircraft, anti-tank shot, mountings for big Navy guns.

In peacetime, our principal business is *electricity.*

But in wartime, our only business is Victory. And that means we are vitally concerned with anything—electrical or not—that our "know-how" can design or build to help win this war.

Westinghouse Electric & Manufacturing Company, Pittsburgh, Pennsylvania.

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The now widely advertised aerosol program became a possibility only through our development of a non-irritating and highly concentrated pyrethrum, and its expansion was based on our ability to manufacture a uniformly dependable product on a rapidly ascending scale. It is no longer a secret that this has been and is one of the army's chief weapons against malaria.

It should be a satisfaction to manufacturers that the D&O Purified Pyrethrum Extract which they have been unable to secure for their own use has been contributing no small share to the winning of battles and will help to win the larger victories we all hope are close at hand.

The critical shortage of pyrethrum flowers cannot be alleviated for some months at best, and in consequence it is useless to hold out hope that the advantages of D&O Purified Extracts will be available to civilian consumers in the near future.

We regret this as we have regretted the curtailment of our normal services to customers during the last twelve months. Also, we wish to express our appreciation of the reasonableness and courtesy shown by most of our customers under difficult and irritating conditions.

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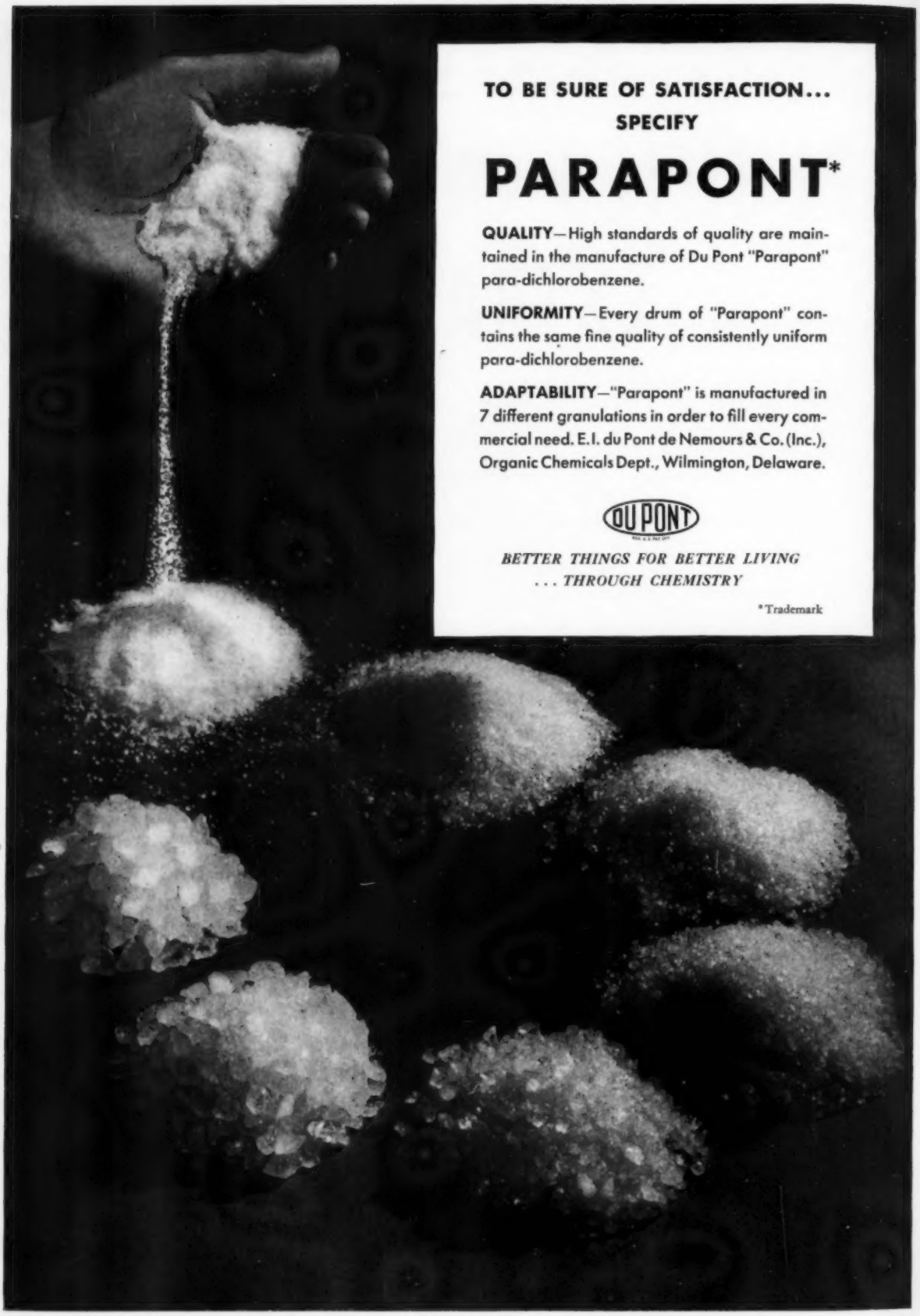
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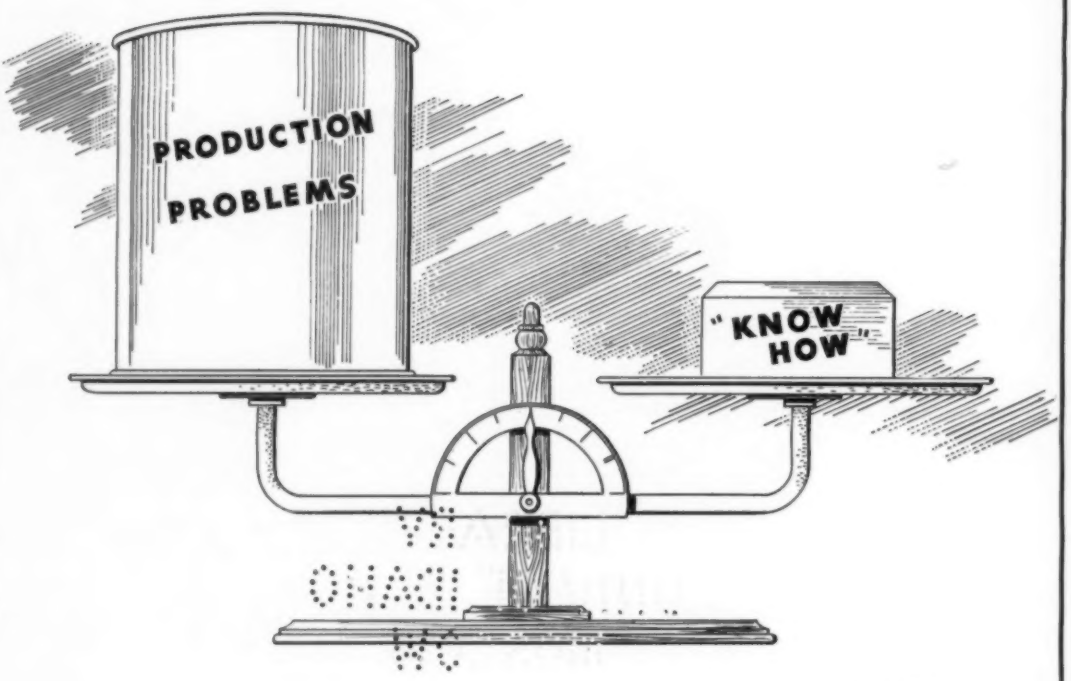

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For prompt shipment of 1943 O.T.I., it is suggested that orders be sent now to the Association office. O.T.I. is available at $5.00 per dozen bottles, plus shipping costs, to members of this Association. To others, there is an additional service charge of $1.00 per dozen. Single bottles are $1.00 each. Check with order is required.

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The greatest bomb that has yet fallen on Tokio is a harmless-looking nozzled spinerette that makes synthetic silks. It shook the silk dynasty on which Japan's whole industry was reared. But war and business go hand in hand in Japan. The crafty Jap saw himself capturing another priceless empire . . . rubber. That would strangle the American war machine. It would let Japan levy tribute on the world through all the peace. But another bomb has fallen on Tokio . . . Buna-S. Two liquids called butadiene and styrene are manufactured by complicated processes and, from them, Buna-S is made. In many ways it is a better rubber than rubber itself. The Jap dream of a priceless rubber empire is but a mirage. Koppers is building, for warring America, the nation's largest butadiene and styrene plant. Koppers coke ovens and benzol plants provide much of the material from which the styrene comes. Other Koppers coal derivatives are used in the processing of natural and synthetic rubber—Koppers Company and Affiliates, Pittsburgh, Pa.

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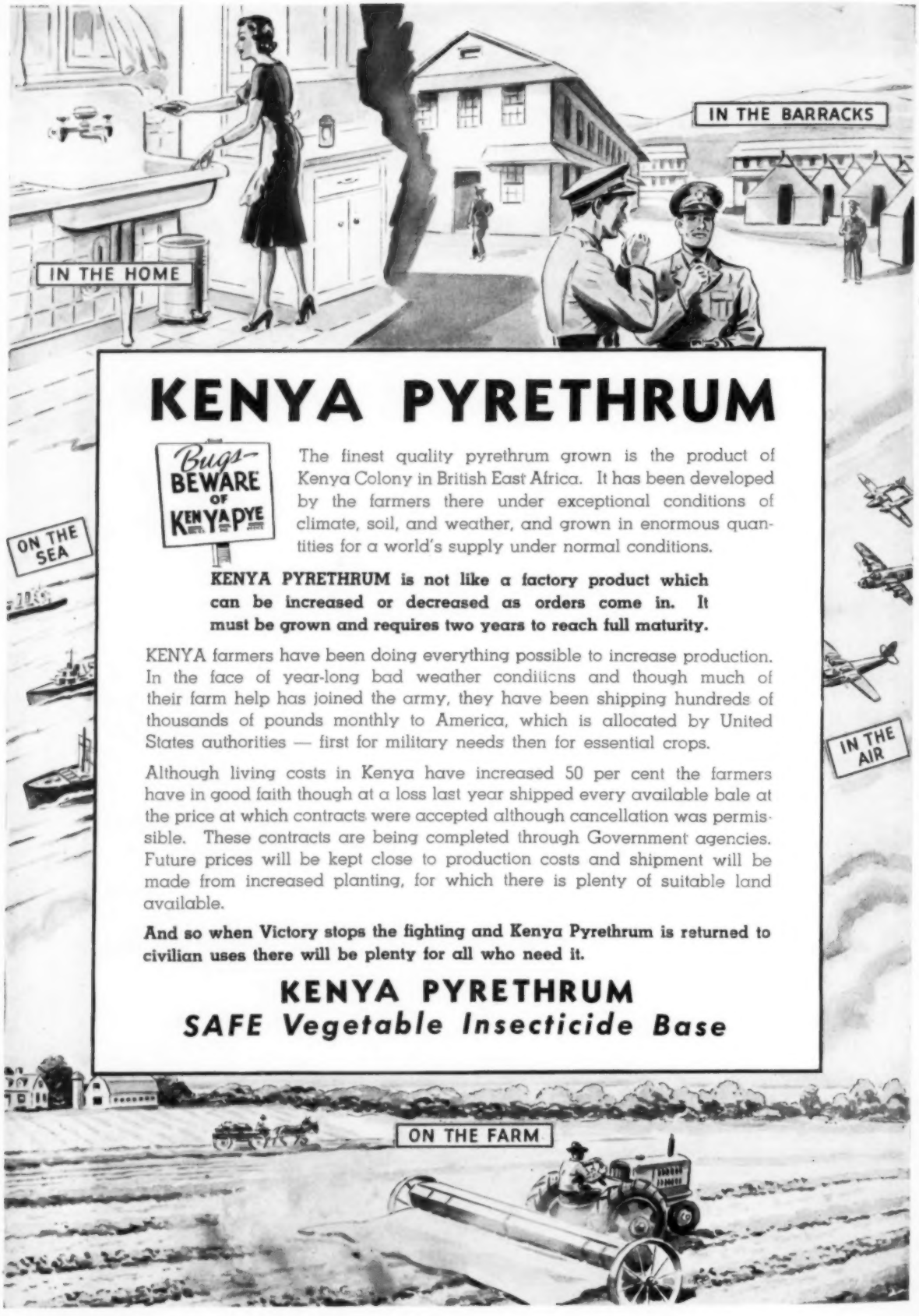

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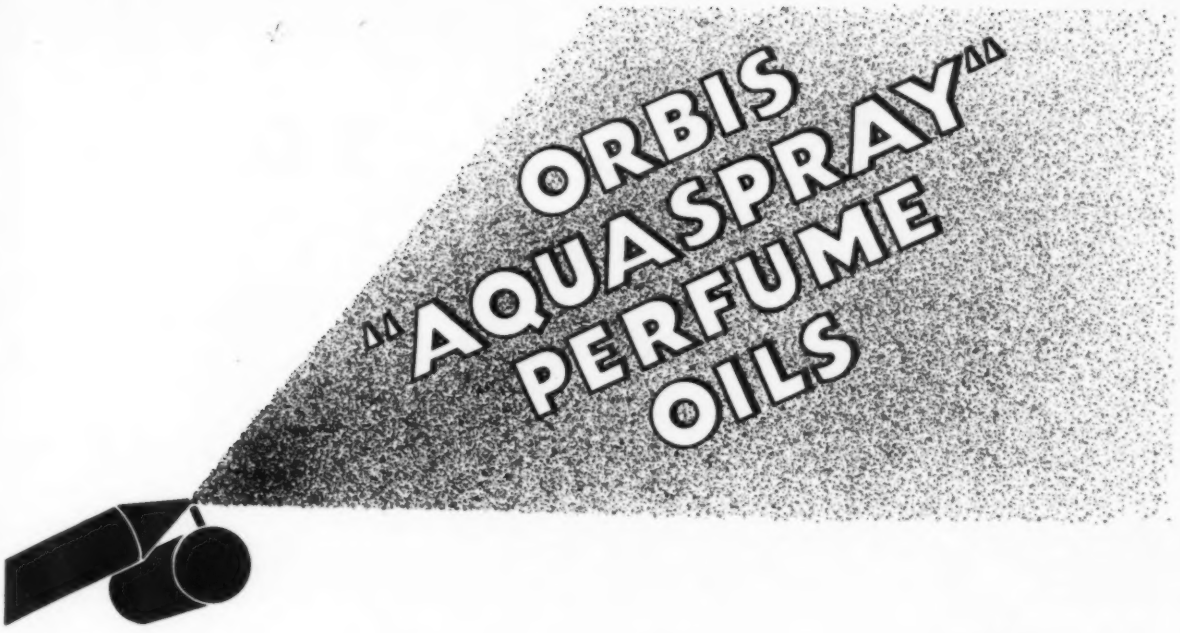
KENYA farmers have been doing everything possible to increase production. In the face of year-long bad weather conditions and though much of their farm help has joined the army, they have been shipping hundreds of thousands of pounds monthly to America, which is allocated by United States authorities — first for military needs then for essential crops.

Although living costs in Kenya have increased 50 per cent the farmers have in good faith though at a loss last year shipped every available bale at the price at which contracts were accepted although cancellation was permissible. These contracts are being completed through Government agencies. Future prices will be kept close to production costs and shipment will be made from increased planting, for which there is plenty of suitable land available.

And so when Victory stops the fighting and Kenya Pyrethrum is returned to civilian uses there will be plenty for all who need it.

KENYA PYRETHRUM

SAFE Vegetable Insecticide Base



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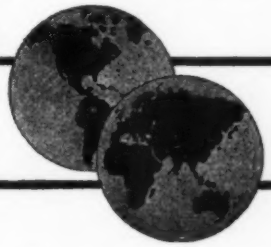

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Insecticide Sprays

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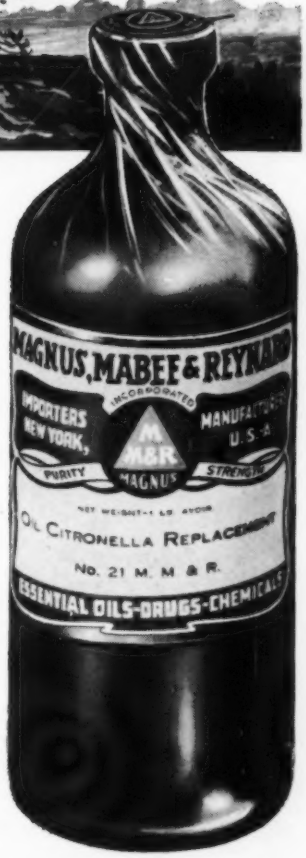

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SANITARY PRODUCTS

Their Manufacture, Testing and Use

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Sanitary Products Industry — reviewing the type firms in the industry, the products they manufacture, and their annual value.

Discovery of Bacteria—historical background on the germ theory of infection.

Principles of Disinfection — the role of chemical preparations in disinfection; definition of disinfectant terms.

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Hypochlorites—manufacture, properties and uses of chlorine disinfectants.

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Rotenone Materials — Occurrence and toxicity of rotenone, and its use as an insecticidal raw material. Comparisons with pyrethrum on toxicity and deterioration.

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Appendix—Complete text of Insecticide Act of 1910, Caustic Poisons Act, Peet-Grady Test for Insecticides, FDA Method for Disinfectant Testing, Mercury Reduction Method, Seil Method, NAIDM Specifications, list of approved antidotes.

SANITARY PRODUCTS has standard high-grade book binding, cloth and board covers, 6 x 9, 312 pages. Priced at $5.00 per copy. Check *must accompany* order. Orders for books to be sent on approval *cannot be accepted*, but the usual return privilege will be accorded where copies are returned unmarred within 10 days. Owing to present conditions, the first edition must be limited. Accordingly an *early order* accompanied by check is suggested.

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- An important branch of Penick research, experiment and achievement is Pyrethrum chemistry. In fact, the present demand for high concentrations is now being met by the Penick laboratories.

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- We are glad to serve the industry concerned with agriculture, livestock, household and general extermination use, within the limits of governmental restriction. Specific information as to end use is the criterion in filling orders.

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A *natural* in the parlance of sports is the athlete with perfect coordination—one of split-second reflexes and timing—a natural in every respect.

It's the same in insecticide concentrates — a *natural* insecticide base such as pyrethrum is created *by nature* for the specific job of supplying the deadly pyrethrins that have been used so successfully for many years as the most toxic base for a safe, effective insect spray.

Prentiss Clarified Pyrethrum Concentrate No. 20 is derived from *natural* pyrethrum and is *guaranteed* to contain 2.0 grams pyrethrins per 100 c.c. relieving you of all guesswork in formulating your spray.

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America's newest and most efficient means of fighting disease!

★ FOR DESTROYING DISEASE GERMS
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★ DISINFECTION OF SURGICAL INSTRUMENTS
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Who, as the world's largest manufacturer of commercial disinfectants, take pride in offering a complete line of synthetic phenol germicides for packaging under private brand. Phenol coefficient values from 5 to 15 inclusive, in choice of several odors and in either emulsifiable or soluble type.

SANITARY PRODUCTS

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

BY THE U. S. Public Health Association, the well-known F.D.A. Method has been pronounced inaccurate and unsuitable for determining the phenol coefficient of the newer type germicides, reports say, namely the quaternary ammonium compounds and substituted phenols. This is especially true in testing against *Staphylococcus Aureus*. In view of the rising importance of this type of germicide, particularly present use by the armed forces and for other war purposes, initial steps have been taken to seek a new test procedure which will give more accurate and consistent results.

Although the plans for working out a new test method are as yet somewhat of a confidential nature, it is understood that leading bacteriologists from several universities and ethical pharmaceutical houses will make up the group to undertake this work. Apparently, commercial disinfectant interests will not be asked to play an important role, if any. The scientific men are reported to fear that representatives of germicide manufacturers or of their trade association might be swayed too much by commercial considerations.

If history is a criterion, this fear of the scientists may be to some degree well founded. However, we feel that they are prone to look back too many years to a source for their fears and that conditions today are not what they were ten or twenty years ago. Furthermore, to ignore the industry which does the actual manufacturing is not sound policy. It will eventually engender trouble. One or two representatives of the National Association of Insecticide & Disinfectant Manufacturers should be invited to sit in on the deliberations. And furthermore, the deliberations should not be behind closed doors as is apparently contemplated. There is no place for "star chamber" proceedings in a matter of this nature which closely affects an entire industry.

THE situation in hand sprayers for insecticide application appears to become more confused as time goes on. Attempts by the insecticide industry to clear the track in Washington to facilitate production of a supply of sprayers at least partially sufficient for current needs has run into a wall of bureaucratic buck passing in W.P.B. Promises of prompt relief in sprayer supplies,—sizes up to one quart,—have been freely made at W.P.B., but action in this direction has been conspicuous by its absence.

No two W.P.B. officials seem to view the problem alike. W.P.B. suggestions for action by the industry have been several and when carried out, are then followed by more suggestions. One official, who should know, stated that no action is needed for sprayer manufacturers to go ahead. Another said that Amended M-126 covering light steel and sheet metal permits sprayers to be manufactured from frozen metal. He said that sprayer manu-

facturers need no further approval,—and should just start turning out sprayers if they have not started,—and if they want to start. And then it is reported that some manufacturers have been making hand sprayers for some time, while others have been awaiting the "go" signal. Still others do not want to be bothered with sprayers at this time. But as far as anything official from W.P.B. in Washington is concerned, all is still a mystery.

THIS story is unconfirmed because the Army will not talk. It has to do with Army louse powder and is apparently very much on the hush-hush side. Probably later, the papers will be plastered with publicity about it in the usual way,—after the fashion of the recent aerosol "health bomb" publicity barrage, — with much credit to this one and that one for their "discovery." But right now, it is sub-rosa, probably to keep the enemy in the dark, although it seems that the idea, and the product, were originally his.

If we can depend upon certain Washington reports, our first Army louse powder, based on pyrethrum et al, of which several million cans were packed and shipped to the armed forces, was not wholly a success as a louse killer in practical use in tropical countries. This is indeed a very mild statement of the facts if reports from British soldiers who used the powder in Africa are fully accredited. But, we were told, the enemy was having a tough time with the louse problem out there and was very anxious to learn the secret of our product because he had nothing of his own for the purpose. At least, that was the basis of the criticism leveled at *Soap & Sanitary Chemicals* several months ago for publishing the formula, even though everybody and his brother in the industry seemed to have a copy of it.

Now, it seems, that when some Germans were captured in Africa, they surprisingly enough carried packages of louse powder. This upon examination, proved to be a derivative of a certain dyestuff and upon testing showed that it was almost a specific for body lice and much superior to our own product. Since then, there has been reported a first-class scramble to obtain supplies of this dyestuff material for use by our Army and a plan is now under way to switch over our whole louse powder program to this product. We hope the new louse killer is tested somewhat more thoroughly by the Army than its predecessor. It would seem that too many "dream formulas" have already been sold to our armed forces by fast and convincing talkers. We also await with interest the publicity releases on this new product when it is deemed to be no longer a "military secret," as in the case of the "health bomb." This entire episode would seem to indicate once again that the armed forces are not taking advantage of the best technical sources of information in their procurement of insect control materials. But as long as the taxpayer foots the bill for this and other needless waste, why worry?

ANNOUNCEMENT that the 1943 Official Test Insecticide is now available for insect spray evaluation reminds us that behind the preparation and distribution of this material every year under the auspices of the National Association of Insecticide & Disinfectant Manufacturers, there is much work and thought by a half-dozen chemists and entomologists of the insecticide industry and the U. S. Department of Agriculture. Year after year, they contribute their knowledge and efforts in order that the O.T.I. may be produced in the interest of the maintenance of quality standards for insect sprays. Their reward is wholly satisfaction in a job well done and a silent vote of appreciation from the insecticide industry the world over.

War Problems Discussed At N. A. I. D. M. Meeting

PROBLEMS growing out of the war,—at least as far as household insecticides, disinfectants and allied sanitary products are concerned,—form the sum and substance of the discussions of the annual mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers being held at the Statler Hotel, Cleveland, June 7 and 8. The current meeting is a War Problems Conference open to all manufacturers and distributors in the field of sanitation products, dealing chiefly with the needs of our armed forces and other government services, and the maintenance of civilian sanitation as a factor of public health especially among workers and in plants producing war goods and foodstuffs.

Several representatives of government departments are among the speakers, including P. H. Groggins, Chief, Chemicals Division, Food Production Administration of the Department of Agriculture; Melvin Goldberg, Insecticides and Fungicides Unit, WPB; W. E. Braithwaite, National Bureau of Standards; and others. H. Dudley Hanson, safety director of the Cleveland Graphite Bronze Co., will speak on "Sanitation in a Large War Plant."

Dr. Russell Weisman, economist of the *Cleveland Plain Dealer* is a speaker on "Business in a War Economy."

Four open-forum symposiums are being held on the problems of war needs, raw material shortages, specifications, and labor. These take in disinfectants, insecticides, floor treatment materials, and general container problems, the topics being introduced by discussion leaders and various experts present being called upon to give their views. These are being followed by question-and-answer sessions.

The meeting is covering two days with group luncheons and discussions, and will close with an informal dinner on Tuesday evening, June 8. General arrangements are in charge of John Powell of John Powell & Co., New York, treasurer of the Association. Henry A. Nelson of the Chemical Supply Co., Cleveland, and H. M. Clark of Dr. Hess & Clark, Inc., Ashland, Ohio, are in charge of the program.

PROGRAM

MONDAY—JUNE 7th

Morning Session

J. N. CURLETT, *Presiding*

9:00 A.M. Registration — Grand Ballroom

10:00 A.M. Meeting called to order

Address of President, John N. Curlett, McCormick & Co.

Report of Secretary, H. W. Hamilton, Koppers Co. — White Tar Division

Appointment of Committees

Roll Call and Introduction of Guests

"Insecticide Supplies from the Service Industry Viewpoint"—W. O. Buettner, Secretary, National Pest Control Association

SYMPOSIUM — Floor Wax Problems

1. Floor Wax Specifications—Dr. R. B. Trusler, Davies-Young Soap Co.
2. Floor Wax Raw Materials and Current Problems — John H. Lawson, Federal Varnish Co.

Miscellaneous Business—

Committee Reports

12:30 Group Luncheon—Lattice Room

Afternoon Session

J. N. CURLETT, *Presiding*

2:00 Meeting called to order

Announcements

2:15 "Insecticide Needs and Supplies" P. H. Groggins, Chief, Chemicals Division, U. S. Department of Agriculture, Food Production Administration, Washington, D.C.

3:00 "Sanitation in a Large War Plant"—H. Dudley Hanson, Safety Director, Cleveland Graphite Bronze Co.

3:30 SYMPOSIUM — Container Problems

1. Bottle Standardization: W. E. Braithwaite, National Bureau of Standards, U. S. Department of Commerce, Washington

HENRY NELSON
. . . arranged war conference program.

H. M. CLARK
. . . aided in general arrangements.

JOHN POWELL
. . . pictures insecticide future.

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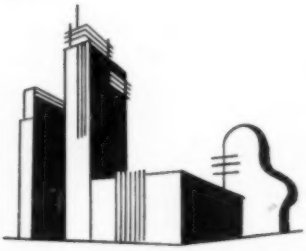

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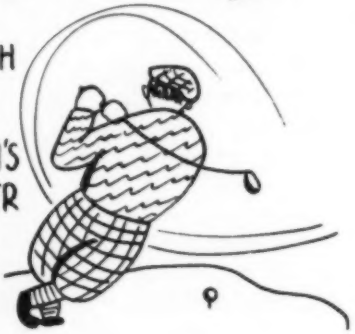

FOR THE FIRST TIME IN NEARLY THREE YEARS BUSINESS INDICES TENTATIVELY MOVED UP A LITTLE

U.S. DEPT. OF AGRICULTURE PROPOSED THAT THE FEDERAL FOOD AND DRUG ACT BE EXPANDED TO INCLUDE COSMETICS

HERCULES POWDER CO. OBSERVED ITS TWENTIETH ANNIVERSARY

NAIDM OFFICIALLY ADOPTED THE FDA METHOD OF TESTING DISINFECTANTS

SO LONG

2. Representative from Glass Container Association, New York.
3. Drum Situation—J. L. Brenn, Huntington Laboratories, Inc., Huntington, Indiana.
4. Wood, Paper and Fibre Boxes—Representative from Fibre Box Association, New York.
5. Representatives from Containers Division, War Production Board, Washington, D. C.

Miscellaneous Business—Committee Reports

4:30 P.M. ADJOURNMENT.

TUESDAY—JUNE 8th
Morning Session
HENRY A. NELSON, *Presiding*

10:00 A.M. Meeting called to order.
Announcements.
Committee Reports.
"The Washington Set Up"—John D. Conner, N.A.I.D.M. Washington Representative.
"Problems of War Production Board"—Melvin Goldberg, Insecticides and Fungicides Unit, War Production Board, Washington, D. C.
Representatives from Office of Price Administration, Washington, D. C.
SYMPOSIUM—*Disinfectant Problems*
1. Government Specifications—Discussion Leader, Friar Thompson, Hercules Powder Co., Dr. E. G. Klarmann, Lehn & Fink Products Corp.
2. Disinfectant Needs of Armed Forces—Discussion Leader, Dr. G. F. Reddish, Lambert Pharmacal Co.
3. Disinfectant Raw Materials—Discussion Leader, Jack E. Varley, Baird & McGuire Inc.
4. Representatives from War Production Board, Washington, D. C.

Miscellaneous Business.

12:30 P.M. GROUP LUNCHEON—LATTICE ROOM.

TUESDAY—JUNE 8th
Afternoon Session
J. N. CURLETT, *Presiding*

2:00 P.M. Meeting called to order.
Announcements.
"Business In A War Economy"—Dr. Russell Weisman, Professor of Economy, Western Reserve University, and Chief Editorial Writer, "Cleveland Plain Dealer."
SYMPOSIUM—*Insecticide Problems*
1. Pyrethrum Analysis and Official Test Insecticide. Discussion Leader, Dr. A. E. Badertscher, McCormick & Co., J. J. T. Graham, U. S. Dept. of Agriculture.
2. Government Specifications—Insecticides. Discussion Leader, Friar Thompson, Hercules Powder Co.
3. Rotenone and Pyrethrum Situation. Discussion Leader, Harold Noble, S. B. Penick & Co.
4. What of Insecticides After the War? Discussion Leader, John Powell, John Powell & Co.
5. Sprayer Situation.

Representatives from War Production Board, Washington, D. C.
Report of Resolutions Committee.
New and Unfinished Business.
ADJOURNMENT.

* * *

6:30 P.M. Informal Dinner—Grand Ballroom.

President's Address

*By John N. Curlett**

McCormick & Company

THE position of the insecticide and disinfectant industry today is that of an essential war industry. The bulk of our materials is going to the army, navy and lend-lease, and what they are not taking, they have first call upon. The greatest demand, besides direct war use of insecticides and disinfectants, is today coming from industrial establishments which are engaged in the manufacture of war materials or in some indirect way associated with war production. The maintenance of sanitation, including insect control, is vitally important to our armed forces and is of equal importance to the factories which are supplying our armed forces with guns, tanks, ammunition, food and clothing. In short, the insecticide and disinfectant industry today is a war industry,—and must be considered as such.

Because of the heavy war demand for insecticides and disinfectants, manufacturers of household products in this field find themselves laboring under great handicaps. This is true of manufacturers whose outlets in the past have been essentially to the householder or to institutions or to what is today considered non-essential industry. To the latter, raw materials, containers and equipment have become increasingly difficult problems,—problems which have bid fair to force some manufacturers who are not producing for war needs, to close down. This industry has by its ingenuity and aggressiveness solved part of the problem of supplying to the home-front these essential products to the welfare of our civilian population. No one questions the need for these products for our armed forces and naturally, they have first call but our industry was faced with a definite obligation to the people at home to keep them free of disease and in a position not only to work but to work harder than ever before. We can all be proud of the achievements along this line because of the many handicaps which had to be overcome.

When we say that the uninterrupted production of insecticides is vital to the health and welfare of the armed forces, we mean just that. If uncontrolled, flies, mosquitoes, lice, fleas and other insects could play havoc with the health and morale of our armed forces. It is said that one of the contributing causes of the defeat of the usually most efficient German army in Africa was a lack of foresight in the control of insects and the lack of basic materials to do the job. This same condition can easily be brought about if insecticides and disinfectants for the maintenance of sanitation and disease prevention among war workers are not available, and serious interference with war production would be inevitable. There have been several instances where epidemics have developed in certain plants dur-

JOHN N. CURLETT
N.A.I.D.M. President

* Address before the Natl. Assn. of Insecticide & Disinfectant Mfrs., Cleveland, June 7, 1943.

ing the past year, and when traced it was reported that they grew out of unsanitary working conditions and the lack of materials to maintain sanitation.

We, as an industry, understand this problem from a practical viewpoint and it is our duty to see that all persons concerned with the handling of insecticides and disinfectants, whether for the armed forces, lend-lease, or our civilian population, develop a well rounded program and not one with both ends open. There are many people in government, and in industry, who are working sincerely to coordinate such a program. There has been some criticism of the methods used but I do think, at this time, while it is the duty of everyone to be frank, they must consider these complex problems objectively rather than emotionally.

"Every cloud has a silver lining." Let's focus our attention, for a moment, on the insecticide and disinfectant industry after the war. The outlook is bright, very bright, with many million service men returning from remote parts of the globe with some knowledge of household insect control and disinfectants gained through their experience in the armed forces. These men will all come home and tell the folks about the war and they will demand that type of sanitation obtained by the use of insecticides and disinfectants,—no more bedbugs, roaches, flies, silverfish, lice or mosquitoes for them after the war. This war is building a potential post-war market which will be larger than any ever known in the past. With the present trend in the production of pyrethrum and synthetic raw materials, post-war insecticide output is bound to increase tremendously.

With the various new disinfectant materials and new uses for disinfectants in the war, a new and broader civilian demand after the war should likewise be created. There are peoples of the earth who never before heard of insecticides and disinfectants, such as the peoples of Africa and the Pacific Islands, who will, after the war, know about the use of these products in the prevention of disease and discomfort. American soldiers and sailors are now for the first time introducing sanitation to these people. As a result of the war, they will become potential peacetime customers of ours. America is far ahead of the rest of the world in methods of practical disinfection and insect control today, so our army and navy will be spreading the "gospel" of modern methods of sanitation wherever they go.

We have an obligation to help win the war and we will have a greater obligation to not only our own population, but to the rest of the world when we win the peace and this industry, as in the past, will come forth and provide those products necessary for the maintenance of the health of the world. This is one of the greatest contributions that can be made to world peace and happiness.

Secretary's Report

*By H. W. Hamilton**

Koppers Company, White Tar Division

H. W. HAMILTON
N.A.I.D.M. Secretary

THIS is a meeting to discuss the problems of an industry. This industry has problems related to the war, and also independent of the war. An industry problem is one that relates to the common interest of the greater number of those manufacturers making the same general commodities. War disrupts the normal flow of trade and causes complicated problems for the individual firm and for the entire group. In this national emergency, the National Association of Insecticide and Disinfectant Manufacturers has gone on record as not only willing but desiring to place its entire facilities, collectively and individually, at the services of the armed forces. Whenever requested to do so, and at other times when the opportunity seemed proper, this industry has offered and performed services for the various combat branches of our country. This we shall continue to do at all times,—during the present war or in any emergencies which may develop in the future.

After all consideration has been given to the combat agencies, there still remain the important civilian population and the necessity of preserving our own activities for the future. The war has created shortages, and in some cases definite absence from the markets, of many raw materials; it has caused manpower reduction in plants and offices; packing, shipping, and transportation have become real "head-aches." To attempt to coordinate and direct some of the industrial problems during this war, there have come into being the WPB, OPA, ODT, WMC, WLB, etc.,—each with its branches and subsections. What goes on in these alphabetical agencies is of vital interest to all of us. What is likely to go on is of even greater interest!

This Association is attempting to keep you informed of what is going on and what is being talked about in these agencies. We are careful not to

(*Turn to Page* 133)

* Report before the mid-year meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Cleveland, June 7, 1943.

This can guards war's deadliest weapon

You hear a lot about monster tanks, giant planes, super-battleships. They're impressive, dramatic.

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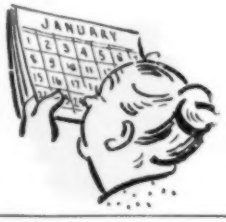

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BEDBUGS....
and their Practical Control

By Dr. M. H. Doner
and
Dr. E. G. Thomssen

J. R. Watkins Co.

THE bedbug and its allies represent about the half-way mark in the evolution of insects. They made their appearance about 240 millions of years ago in the period just preceding the rise of the dinosaurs. Since man has existed only for about 400,000 years, it is obvious that these bugs derived their food from other creatures, presumably birds and bats. Once bedbugs were free-flying insects but, owing to their adoption of the parasitic mode of life, they have long since lost their power of flight, the wings having been reduced to mere vestiges. The dinosaurs have long since become extinct but the bedbug, in common with other insects, compensated a free-living existence for a lowly parasitic existence.

That primitive man suffered from bedbug infestations, is a likely conjecture and from the study of literature it is apparent that the insect was a familiar parasite to the peoples of ancient civilizations. Brought to England more than 400 years ago, early in the reign of King Henry VIII, they were introduced into North America in the Sixteenth Century by the Spaniards. Thus the bedbug is practically cosmopolitan in habitat and has come to be so closely associated with man as to be a common household word, erroneously, however, associated with uncleanliness or poorly-kept dwellings and with institutions, jails, factories, cheap lodging houses and similar places.

The family Cimicidae, to which our common bedbug belongs, is represented in America north of Mexico by four distinct species. These can be distinguished with the aid of the following key*:

A. Beak on underside of head short, extending to the base of the *first* pair of legs. (If not true proceed to AA).

B. Front edge of that part of body just in back of the head very deeply sinuate . . . *Genus Cimex*. (If true proceed to C, if false, proceed to BB).

C. Body covered with short hairs; second joint of antennae ("feelers") longer than the third joint. . . . Common Bedbug (*C. lectularius*).

(If not true proceed to CC).

CC. Body covered with longer hairs; second and third joints of antennae of equal length. Found on bats. . . . C. *pilosellus*.

BB. Front edge of that part of body immediately in back of head nearly straight across the middle. Found in Swallows' nests. *Oeciacus vicarius*.

AA. Beak on underside of head long, extending to the base of the hind pair of legs. Common on poultry in southwest United States and Mexico. . . . *Haematosiphon inodorus*.

* Adapted from Riley and Johannsen.

The true bedbug, represented in tropical Africa and Asia by a related species (*Cimex rodundatus Sig.*), is frequently mistaken for other insects that are similar in appearance, for example, certain common, brown, flat, wingless insects that live in wood shavings or that feed on fermenting wood sap of freshly-cut lumber, likewise, with certain parasites of birds and bats, which, on occasion, may attack human beings.

The bedbug can be distinguished from other similar-appearing insects by the long and slender third and fourth joints of the antennae or "feelers" and by the crescent-shaped thorax which nearly encompasses the head. The body is covered with short hairs, giving the bug a rough appearance.

Occurrence

The bedbug is not always associated with untidy housekeeping and unclean living quarters. In fact, the most meticulous housewife may suddenly find herself confronted with an infestation and when she does, particularly for the first time, keeps it a well-veiled secret until the insect has so established itself that control measures become urgent. This situation, due to the strong antipathy held against the insect and an attendant feeling of

shame, has all too frequently given the pest a chance to become well established.

The most common avenues of entrance into dwellings are in baskets of laundry or in packages carried by travelers. Specimens have been encountered crawling on plush seats in railway coaches. They easily transfer to taxicabs or to hotels and thus become a source of further spread. Bedbugs can and do travel from house to house, particularly if the occupants of an infested house leave. Likewise, they can reach new places via walls, pipes, open windows and other similar avenues.

It is interesting to note the report of Dr. W. Herdt* that in a crowded part of the city of Malmoe, a European city of somewhat less than 100,000 individuals, 52 per cent of the houses were infested, or 28 per cent for the city as a whole. According to Haude,** surveys show that at least 65 per cent of large metropolitan areas in Europe and America are infested with bedbugs. The bedbug is claimed to be one of the most important problems in our army training camps.

Poultry houses and animal houses may become so overrun with bedbugs as to seriously impair the health of the occupants. In the U.S. D.A. Yearbook (1942) it is stated that bedbugs are "often abundant in crates, both of wood and metal, in which poultry are shipped or in which they are held and fed at markets. As many as 2,500 well-grown, well-fed bedbugs were removed from the cracks of two wooden crates taken at random from one poultry market, no count being made of the multitude of eggs and very young bedbugs present." Infested chickens "do not fatten, egg-laying is reduced, and setting hens may become weak or even die." If need be the bug can survive nearly twelve months in the complete absence of food, and observations are on record of newly-hatched bugs surviving several months without sustenance of any sort. Naturally, this ability greatly increases the potency of the bedbug as a pest of human beings.

* Soap 12(11):111-113 (1940).
** Soap 15(10):90-92, 23 (1940).

Feeding Habits

The mouth parts of bedbugs are adapted for piercing tissues and sucking. Blood is the sole article of diet and while human blood is preferred, that of canaries, rabbits, guinea pigs, white rats, mice and poultry are fed on. The false notion of many that bedbugs feed on the starch of wall paper, the juices of moistened wood or the moisture in accumulated dust is based on the observation of similar insects that inhabit such materials.

Like mosquitoes, bedbugs inject a fluid into the wound to aid in feeding and this frequently sets up an irritation that results in inflammation and welts. On the other hand, there are individuals who are entirely insensible to the "sting" and observe no ill effects. It is stated that one-quarter of all men are insensitive to the bedbug.

Feeding usually takes place at night. As soon as darkness is at hand, the insects leave their hiding places and seek their hosts. In theaters, offices and other places inhabited only during the daytime, bedbugs attack during the day. It is popularly held that bugs will drop on sleeping persons from the ceiling overhead, but this cannot be corroborated by scientific evidence.

From 3 to 5 or more minutes are required for a complete feeding. As many as nine punctures may be made before the bug proceeds to suck blood, much as a mosquito will repeatedly insert its mouthparts until a food supply is reached. After engorging with blood the insect quickly retreats and remains inactive for several days until the food is digested. As already indicated, the bedbug can exist without food for long periods of time if necessary, a feat that only intensifies the perniciousness of the insect.

Life History

The female bedbug deposits its quota of about 50 to 200 eggs in cracks or crevices that afford hiding places for the adults (cracks in furniture, behind loose wall paper and baseboards, cracks in the bed, in tufts or seams of mattresses, under the edges of carpets, behind pictures and moldings). They hatch in six to 10 days, depending upon temperature. Six to 17 days is the usual period at temperatures about 70° F.

The young bugs, somewhat transparent at first, turn brown as they get older. Before attaining adult size they must shed their skins five times and each shedding or ecdysis must be preceded by a feeding of blood. Full growth is possible in seven weeks under ideal temperature and food conditions, several times as long in winter months. In well-heated houses there may be at least four generations of bedbugs a year.

Bedbug Odor

In common with numerous other true bugs, such as the squash bug or "stink bug," the body of the bedbug is provided with pores between the hind pair of legs that emit a volatile liquid. This vile-smelling fluid serves to protect the insect from several of its natural enemies. Certain insects (house centipedes and the little red ants) do not apparently object to the odor and actually attack and destroy bedbugs. To many people this odor is most offensive and to persons who are sensitive to it this affords a convenient way of locating infestations.

Possible Disease Carrier?

Although there is no scientific evidence to prove that the bedbug in this country is a vector of human pathogens, there is every likelihood that this is possible since the bugs can be experimentally infected. Certainly, by feeding on different persons, one or more of whom may carry pathogenic organisms in the blood stream, it would seem possible that the bedbug may, upon occasion, act as a vector. At least it can be viewed with suspicion.

Control Measures

The experience of the writer has been that the finding of only a single bug in the house by a housewife is due cause for anxiety and drastic action. While it may be the only individual present, there is always the fear that others may be about or will soon be hatching. Whatever the situation may be, efforts at control should begin at once, providing, of course,

that the insect turns out to be a genuine bedbug.

There are many practical methods of control that can be used, which one can use depending upon a multitude of conditions and the availability of insecticides and insecticide equipment.

Fumigation

Hydrocyanic acid gas fumigation by a licensed fumigator is indicated under conditions of heavy infestations and when the insects are out of reach of ordinary insecticides. The burning of sulfur at the rate of 2 to 5 lbs. per 1,000 cubic feet has been recommended, but does not always give successful control. The danger of tarnishing metals and bleaching certain colors often disqualifies sulfur. Haude* reported fumigation as being most commonly recommended by state experiment stations. It is not, however, a practical form of control, at least with the commonly recommended, highly-dangerous fumigants and the vapors of nicotine dusts, paradichlorobenzene, naphthalene, camphor, benzene and formalin are of no value in bedbug control.

Temperature

Elevating the temperature of infested rooms to 120°-125° F. for several hours kills bedbugs. When it is possible to build up and maintain such temperatures, effective control can be expected. The chief difficulty encountered with this method is that pointed out by Hockenyos,** namely, the difficulty of heating up the floor of a room quickly enough to prevent escape of the bedbugs under the baseboards to a cooler level.

The filling of rooms with steam is claimed to be an effective control, but the danger in injuring furniture and other objects tends to disqualify the method for use in homes.

Infested buildings that can be left open and maintained at freezing temperatures for several weeks can be eliminated of all bedbugs.

Liquid Insecticides

Much has been published as to what constitutes a satisfactory bedbug liquid insecticide. In the last analysis, it appears that what is or is not satisfactory, aside from the toxicity angle, depends in large measure upon the place where it is to be used. Thus, the use of a perfumed, refined base oil insecticides is desirable for application in hotel bedrooms, theaters, coaches and is preferred by discriminating housewives, whereas ill-smelling preparations, such as those containing nitrobenzene, are hardly acceptable. On the other hand, insecticide odor is of secondary importance and meets no particular objection in jails, cheap lodging houses and various other free, public institutions. On the farm, creosote oil or crude petroleum are very acceptable for ridding poultry houses and poultry equipment of bedbugs.

There is no question but that the use of a liquid insecticide offers the consumer a most useful, practical means of control. But if there is any doubt in the minds of entomologists as to what type of product can be expected to give complete control of eggs, nymphs and adults, we can imagine the plight of the average housewife who knows little or nothing about toxic values and the correct means of application. On the basis of Murray's*** survey, it is apparent that the average housewife buys according to brand or to what is recommended to be a "good seller." Price may be an important factor too. Superimposed on this problem is the fact, pointed out by Opitz†, that many of the ordinary household "fly sprays" are not necessarily ideal bedbug insecticides. It now appears quite clear, however, that any of the grade AA products can be expected to give good control *when properly applied*.

Although sprays of kerosene alone are toxic to bedbugs, toxicants are incorporated into the oil for greater toxicity to the eggs and adults, and for residual effect; and the lighter the base oil the greater the amount of toxicant required. Pyrethrins I and II, the toxic constituents of pyrethrum, are ideal toxicants. They have long been used in bedbug preparations, but have a comparatively short residual action. With the present restrictions on the use of pyrethrum in household sprays, other materials can be safely substituted. Calloway and Musgrave†† reported that a 3 per cent solution of B-butoxy-B'-thiocyanodiethyl ether (Lethane 384) alone or in combination with pyrethrins, was effective in destroying the eggs. Additional experimental and practical work by the Rohm & Haas Corporation showed that a 4 per cent solution of Lethane 384 in a water-white petroleum distillate kills the young stages and adults and at the same time sterilizes the eggs. Two per cent solutions of Thanite, a product of the Hercules Powder Company, are also claimed to be effective for bedbugs. Sprays containing rotenone and other resins of derris or cubé, either in colloidal suspension or in solution, are effective alone or in combination with pyrethrum, the aliphatic thiocyanates, and other so-called "pyrethrum substitutes."

Previous writers have stressed the essential requirements of liquid sprays for bedbugs, which are: (1), little or no residual kerosene odor; (2), properly (not too strongly) perfumed; (3), high kill of all stages; (4), freedom from staining of wall paper, mattresses, drapes, shades, carpets, etc.; (5), non-poisonous; (6), non-corrosive.

Because of the peculiar, disagreeable odor of bedbug habitats, the matter of perfuming a bedbug spray is a special problem in itself. As stated by Haude, the problem is "not merely one of masking the petroleum oil base of the spray, but also one of neutralizing the bug odor which pervades a room," which "can generally be accomplished by the use of essential oils with relatively high boiling points."

In addition to Ohio State University, several commercial laboratories, using the bedbug as a test insect, are developing techniques for evaluating household insecticides that are applied by atomization, but until more data is available, it seems best to postpone judgments.

Adequate directions for use are frequently wanting on labels. Most

(*Turn to Page* 127)

* Soap 15(10):90-92, 123 (1939).
** Pests 8(5):12-16 (1940).
*** Soap 18(10):95, 97, 99, 115.
† Soap 13(11):101, 103 (1937).
†† Ann. Appl. Biol. 27:252-61 (1940); J. Hyg. 40:462-73 (1940).

Keep Abreast of Wartime Needs With FEDERAL FLOOR FINISHES

Wartime production, because it must be continuous, has placed new demands on floors. Delays in the manufacture of essential materials are costly in time and money. This means that floors must be cleaned and finished and maintenance accomplished in record time.

Industrialists throughout America know the necessity of having clean, sanitary, non-slippery, splinterless, light colored floors that can easily and quickly be kept in perfect condition. They know that improper floors may cause accidents, illness and a feeling of insecurity that cuts down efficiency.

Federal Flooring Engineers have analyzed the problems of manufacturing plants of all kinds, working under varied and unusual conditions, and from their findings have developed floor finishing and maintenance products to meet the exact needs of these plants.

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FLOOR WAX...

N.A.I.D.M. Committee discusses specification and standard method of test for water-emulsion waxes

A SPECIFICATION and standard method of testing for water emulsion floor waxes as revised and approved by the Sanitary Products Committee of the National Association of Insecticide & Disinfectant Manufacturers, were adopted as tentative standards by the Association at its annual meeting, Dec. 8, 1942. The new tentative specification and test methods are now up for further discussion at the current meeting of the N.A.I.D.M. in Cleveland. Dr. R. B. Trusler, research director for the Davies-Young Soap Co., Dayton, Ohio, is chairman of the Sanitary Products Committee. Specification and method follow:

SPECIFICATION FOR WATER-DISPERSION FLOOR WAX

Applicable to Waxes of from 10 to 15% Total Solids

A. General Requirements

1. The material shall be suitable for application to all sealed floors and floor coverings in general.

2. The material shall be a stable aqueous colloidal dispersion of waxes and other suitable substances. The composition and properties of the material shall be such that it will meet all of the provisions of the detailed requirements, when tested by the NAIDM test methods.

3. When applied in accordance with the manufacturer's direction, the material shall dry to a lustrous finish without polishing.

B. Detailed Requirements

1. *Sediment.* The material shall be a fluid dispersion containing not over 4 per cent sediment.

2. *Stability.* The material shall show no gelling or creaming when kept in closed containers at 52° C. (125° F.) for 168 hours (7 days).

3. *Application.* The material is to be applied as a thin, uniform film to clean dry flooring surfaces.

4. *Color and Transparency.* A thin, dried film of the material, prepared by flowing onto a clear glass plate and drying in air at 25° C. (77° F.), shall be substantially transparent and practically colorless, as viewed by transmitted bright daylight.

5. *Levelling and Spreading.* The material, when applied as a thin, uniform film on new linoleum shall dry without streaking.

6. *Lustre or Gloss.* The dried film shall increase the gloss of new linoleum not less than 10 per cent, as measured by a light reflectance meter.

7. *Alkalinity.* The material shall not have a pH greater than 10.0 nor less than 4.0.

8. *Surface Tension.* The material shall have a surface tension not greater than 33 dynes per centimeter at 25° C. (77° F.).

9. *Flexibility of Film.* The dried film shall be sufficiently flexible so that no cracking will occur when a 2 coat application, on new linoleum, dried 48 hours at 25° C. (77° F.) and 50 per cent relative humidity is bent, through 180° around a 2 inch diameter mandrel.

10. *Abrasion Resistance.* The dried film shall have an abrasion index (Taber cycles divided by weight of film in mgs. per sq. cm.) of not less than 100 when tested on glass plates using a Taber Abraser (Model J or equivalent) with Taber CS-10 Calibrase wheels.

11. *Tackiness and Slipperiness.* The dried film shall be neither soft and sticky nor excessively slippery.

12. *Water Resistance.* The dried film on a specified surface, after 48 hours at 25° C. (77° F.) and 50 per cent relative humidity shall be resistant to cold water. The film shall not be permanently whitened or damaged by contact with water for one hour at 25° C. (77° F.). The film shall not be removed by damp mopping with a soft rag using clear water at 25° C. (77° F.).

13. *Removal of Film.* A film dried for 48 hours at 25° C. (77° F.) and 50 per cent relative humidity, on new linoleum, shall be easily removable by moderate scrubbing with a soft bristle brush, using an aqueous detergent solution, containing 0.25 per cent tallow soap chips and 0.25 per cent aqua ammonia (28 per cent NH_3) at a temperature of 50° C. (122° F.).

N.A.I.D.M. PROPOSED STANDARD METHODS FOR TESTING WATER-DISPERSION FLOOR WAX

Purpose

The purpose of compiling a more or less complete set of methods for testing water-dispersion floor wax is to make available to the manufacturer, user or other interested persons suitable procedures which have proven to be best adapted for the purpose intended. It is the further purpose to limit the methods more or less to tests designed to evaluate performance properties rather than to determine composition data. There is a need for such standard methods because even on such a simple test as total solid content, there is a possibility of widely divergent results unless great attention is paid to small details. At present there are no methods accepted as standard by any association or group except as such methods may be part of a specification. Standard methods of testing will make it possible to elimniate controversies which are now inevitable.

Methods of Testing

1. *Sediment.* Mix the original sample well and pour a 100 cc. portion into a graduated A.S.T.M. water and sediment tube. Centrifuge for 15 minutes at approximately 2,000 r.p.m. Read directly volume of sediment in mls.

2. *Stability.* Measure viscosity of original sample at 25° C. (77° F.) using Oswald type pipet viscosimeter. Pour 100 ml. of the original sample into a 4 oz. bottle approximately 35 mm. inside diameter. Close the bottle securely with a clean cork and allow it to stand undisturbed in an upright position at 52° C. (125° F.) for 168 hours. At the end of this time, cool to room temperature, measure viscosity as before and observe for any creaming, separation or gelling.

3. *Total Solids.* Use a porcelain capsule crucible approximately 5 cm. in diameter and 1 cm. deep for the determination. Heat the capsule to dull red heat, cool in a desiccator, and weigh to the nearest tenth of a milligram. Place in the capsule a sample of from 2 to 3 grams accurately weighed to the nearest milligram, taking suitable precautions to avoid error due to loss of weight by evaporation during transfer and weighing of the sample. Heat the capsule containing the sample on a steam bath for 1 hour, then transfer it to a drying oven and heat for 3 hours at 105° to 110° C. (221° to 230° F.). Cool the capsule in a desiccator and weigh to the nearest tenth of a milligram. Multiply the weight of non-volatile matter by 100 and divide

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by the weight of the sample to obtain the percentage of non-volatile matter.

4. *pH Value.* Determine the pH of the sample at 25° C. (77° F.) using a glass electrode pH meter without application of correction for sodium or potassium ion concentration.

5. *Surface Tension.* The surface tension of the sample at 25° C. (77° F.) may be determined by one of the reliable, established methods for this determination. The ring detachment method is preferred for this test on water-dispersion waxes. Instruments suitable for determination of the surface tension of water-dispersion floor waxes include the Cenco-du Nouy Tensiometers described in Bulletin 101 of the Central Scientific Company.

6. *Levelling and Spreading.* Test panels, 3 x 6 inches, of new brown linoleum of good quality and either ⅛ or ¼ inch in thickness shall be used. Before applying the water-dispersion wax to these test panels, thoroughly remove any wax coating. Usually this can be done by soaking for five minutes at 50° C. (122° F.) in an aqueous solution containing 0.25 per cent by weight of 88-92 per cent tallow chip soap and 0.25 per cent by weight of 28 per cent aqua ammonia, scrubbing the top surface of the test panels gently with a soft bristle brush or cloth saturated with the above detergent solution at 40°-50° C. (104°-122° F.), rinsing the test panels thoroughly with water at 40°-50° C., draining and wiping the top surface dry with soft clean cloths.

Apply some of the sample to one of the cleaned linoleum test panels, using a small, clean mohair applicator just saturated with the sample, and applying it with light, uniform, overlapping parallel strokes. Note levelling and spreading properties from appearance of dried film.

Place coated linoleum specimen in desiccator or chamber in which humidity is controlled at 50 per cent relative humidity (see Note 1) at a temperature of 25° C. (77° F.) for 48 hours. Then apply a second coat of sample using same technic as above. Note any re-emulsification on applying second coat and levelling and spreading properties from appearance of dried film.

If flexibility of film is required, test can be carried out on same test panel.

7. *Drying Time.* Flow a uniform film of the sample over the surface of a clear glass plate which has been cleaned by immersion in chromic acid cleaning solution followed by thorough rinsing with clear water. Incline the test plate at an angle of 45° to the horizontal and allow it to drain and dry in this position in air maintained at a temperature of 25° C. (77° F.) and 50 per cent relative humidity. Observe time required for film to become dry to touch at a point 15 mm. above lower horizontal edge. Express drying time as period required to nearest minute. If transparency of film is required, observation can be made on this same test panel.

8. *Gloss or Lustre.* Use a gloss meter consisting of a light source, of constant intensity, directing a substantially parallel beam at the surface to be tested at an angle of incidence of 45°; a photocell, with a spectral-response curve approximating the ICI standard luminosity curve, placed to intercept the reflected beam at an angle of reflection of -45°; a sensitive galvanometer for measuring the e.m.f. generated by the photocell. A meter of this description is supplied by Pfaltz & Bauer, Inc., New York City. Calibrate the gloss meter by placing it on an optical flat, made of glass with an index of refraction of nD = 1.5172, 8 mm. thick, with a fine ground back resting on a non-reflecting black surface. Check the instrument before and after all readings on test panels.

Select a test panel of new brown linoleum from which all wax has been thoroughly removed and record the gloss of the test panel. Flow a uniform film of the sample onto this test panel, drain and dry at an angle of 45° in air at a temperature of 25° C. (77° F.) and 50 per cent relative humidity for a period of 24 hours, then measure the gloss of the dried film on the test panel with the calibrated gloss meter. Subtract the gloss reading of the test panel from the gloss reading of the dried film on the test panel, multiply the difference by 100, and divide by gloss reading of the test panel to give the percentage increase in gloss.

As an alternative method particularly intended for control testing, it is proposed that a standard test solution consisting of ammonia-water-shellac or sugar in water be developed so that such solution when applied to a linoleum surface will produce a gloss equivalent to an increase of 100 per cent as determined by the gloss meter.

9. *Transparency of Film.* Clean a piece of clear plate glass using chromic acid cleaning solution and rinse thoroughly. Flow a uniform film of the sample onto one surface of this glass, and allow it to drain and dry at an angle of 45° in air at a temperature of 25° C. (77° F.) and 50 per cent relative humidity. Observe the dried film from the under side of the glass plate by transmitted bright daylight.

10. *Flexibility of Film.* Prepare linoleum test panel with 2 coats of sample exactly as described under Levelling and Spreading. Alternately the same test panel may be used for both tests. Determine the flexibility of the film at 25° C. (77° F.) and 50 per cent relative humidity by bending the test panel, with the treated surface on the outside, around a mandrel 2 inches in diameter, through an arc of 180°. Observe the film for any cracking or chipping.

11. *Abrasion Resistance.* Prepare three discs of ⅛" thick, clear plate glass, each 4" in diameter with a ¼" diameter hole in the center. Clean the discs by the method specified for linoleum test panels. By means of two glass cylinders, one 2" in diameter and one 3⅞" in diameter, with lower ends ground exactly at right angles to their axes, and dipped into melted paraffin, apply two rings of paraffin to the upper surface of each disc, concentric with the center hole, being careful to avoid contaminating the cleaned glass surface between the two rings. Determine the area of the glass surface between the two paraffin rings in sq. cm. by actual measurement with an accuracy of ± 2 per cent. Mark each glass disc for identification, and weigh each accurately in air at 25° C. (77° F.) and 50 per cent relative humidity. Coat the surface between the two paraffin rings on each disc with a thin uniform film of the original sample by applying between 0.5 and 1.0 ml. of the original sample of water-dispersion wax from a 1 ml. pipette and spreading it uniformly over the entire surface between the paraffin rings with the tip of the pipette. Dry the coated discs in a horizontal position in air at 25° C. (77° F.) and 50 per cent relative humidity for 24 hours, and weigh the discs again accurately under these conditions. Subtract the original weight and divide the difference in milligrams by the area of the wax film in sq. cm. to give the weight of coating in mg. per sq. cm. Abrade the coating on each disc, at 25° C. (77° F.) and 50 per cent relative humidity, on a Taber Abraser, Model J, using Taber CS-10 Calibrase wheels, until the coating has been worn away from approximately 50 per cent of the area of the abrasion track. Clean the wheels by ten cycles on the carborundum paper cleaning discs after each 100 cycles on the wax surface. Subtract the total number of cleaning cycles from the total number of cleaning and abrading cycles. Divide the number of abrasion cycles required for each disc by the weight of the dried coating in mg. per sq. cm. on that disc to give the wear resistance index.

12. *Tackiness and Slipperiness.* No satisfactory method has yet been developed.

13. *Water Resistance.* Prepare a test panel on cleaned new linoleum in the manner described under Levelling and Spreading. Place a large drop of distilled water, 1 to 2 cm. in diameter, on the treated surface of the test panel. Allow to stand undisturbed for one hour in air at 25° C. (77° F.) and 50 per cent relative humidity. Shake off any remaining water. Observe whether the wax film is damaged or appreciably whitened by the water. Note whether any visible spotting of the film disappears on drying for ½ hour at 25° C. (77° F.) and 50 per cent relative humidity.

14. *Resistance to Damp Mopping.* Wet a clean soft cloth with clear water at 25° C. (77° F.). Wipe the entire treated surface of the test panel used in the Water Resistance test with this wet cloth, exerting moderate pressure and wiping five times at intervals of 2 seconds. Then wipe the test panel dry with a clean soft, dry cloth. Observe whether the wax film is removed by this process.

15. *Removability.* Prepare a test panel on cleaned new linoleum in the same manner described under Levelling and Spreading. After aging panel for 48 hours, immerse it in detergent solution same as specified under Levelling and Spreading, for 5 minutes at a temperature of 50° C. (122° F.). Then, with a test panel still immersed, scrub its treated surface moderately with a soft bristle brush, making at least 10 strokes of the brush with moderate hand pressure across each portion of the treated

(*Turn to Page* 127)

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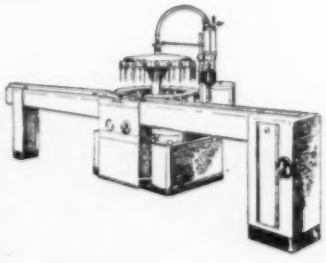

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INSECT KILL

the action of insecticides on insect issue

By Dr. Alfred Weed

John Powell & Co.

ALTHOUGH much research has been conducted in the laboratory on the effect of various insecticides on insects, but little attention has been given to the tissue on which they act. Whether the injury to tissue as found by some investigators is responsible for the death of the insects or is a reaction accompanying death is a point that may be debated. Nevertheless with some insecticides it is known that certain tissues are affected and in such reactions we have a means of explaining how these insecticides kill.

At the outset it is assumed that the mechanics of entrance of the insecticide have already been covered. There are many citations in the literature dealing with detailed studies on the mode of insecticide entrance—through the alimentary tract, breathing openings or spiracles and the accompanying tracheal system, other openings through the chitinous outer skeleton which insects possess, through the thinner portions of this skeleton, particularly where segments join and where legs or other appendages are attached, as well as at the base of sensory hairs. Thus by one or more of these means entrance of the toxic material to the body cavity of the insect is gained through the outer shell. Then what happens?

Arsenic

The action of arsenic on respiration has been the subject of much study. The arsenical insecticides kill insects when absorbed through the walls of the alimentary tract and by external application to the exoskeleton.

O'Kane and Glover noted a characteristic red color in disintegrating thoracic tissues in American roaches that died from external applications of sodium arsenite and white arsenic.

Other histological changes resulting from the action of arsenic on insects are reported by Parfentjev who working with the migratory locust and mosquito larvae observed morphological changes in the mid-intestine. He found the epithelial cells sloughed or scaled off and lay in groups in the intestine. Pilat reports that some arsenicals result in separation of the epithelium and the connective tissue below it, particularly in the fore part of the mid-intestine. Accompanying these changes in the intestinal epithelium the blood corpuscles disintegrate or their division is intensified. Fisher notes that in the oriental roach killed with white arsenic a marked reduction in the number of blood cells takes place to approximately twenty-five per cent (25%) of what may be normal.

Fink and others have found that most of the common arsenical insecticides depress oxygen consumption in insects. Their effectiveness is related to their solubility in the insect's digestive tract, the hydrogen-ion concentration of the digestive fluids, and the buffering power of the juices and gut contents.

Fluorine Compounds

There is little to report from a histological angle on the effects of fluorine compounds on insects. Shafer in 1915 described how sodium fluoride killed roaches, acting both as a contact and ingested poison. He reports that sodium fluoride interferes with the catalase and oxidase activities of insect tissue extract.

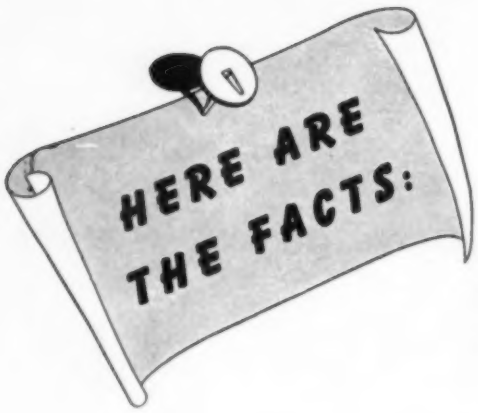
Pilat reports some fluorine compounds bring about changes in the intestinal lining like those produced by arsenicals—separation of the epithelium at the anterior end of the mid-gut from the underlying connective tissue and disintegration of blood cells. Fluorine compounds upset the calcium balance in animals evidently through calcium precipitation in the blood plasma.

Petroleum Oil

Oils are explained as killing insects in three ways (1) by suffocation through blocking of the respiratory system (2) by actual destruction of tissue structure following penetration and (3) through the fumigant action of their volatile constituents. It is probable that all of these means in combination cover the explanation of how oils kill.

deOng and Ebeling working with scale insects have studied the penetration of the tracheal system by oils. It has been shown by their work that the unsaturates in oils are toxic either through their direct effects on insect tissue or through their fumigant action. Volatile oil was found to pass through the entire body cavity of scale insects, dissolving the fat bodies and even the entire cellular structure. Highly refined kerosene, while it was observed to enter the tracheal system, was frequently expelled and had little effect. Heavier highly refined oils entered the tracheal trunks and remained there, probably killing by suffocation.

Suffocation is a slow process in insects and Shafer has found that oxygen and carbon dioxide can pass through thin layers of light petroleum oil. It is therefore possible that ultimate death in some of these experiments is actually attributable to un-



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saturated compounds present in very meagre amounts rather than suffocation.

One of the most interesting series of experiments on "How Contact Insecticides Kill" were carried out by Shafer. Among the many materials investigated were the vapors of gasoline and kerosene which are highly toxic to insects. His observations on the reactions of insects to these vapors are almost identical with the behavior of insects subjected to spraying with a liquid insecticide—first, a period of excitement; then depression followed by anesthesia. He noted that respiration increased until after the insects were deeply affected, then reduced. He found that insect tissue absorbed a certain amount of these vapors and when the insects were exposed to pure air the vapors were given off, but not with the rapidity with which they had been absorbed. He concludes that these toxic vapors "become effective mainly through some tendency their presence exerts to prevent oxygen absorption by the tissues."

Richards working with mosquito larvae killed by petroleum oils has noted a clumping of the chromatin in the nuclei, particularly in the central nervous system. He considers this a criterion of asphyxiation rather than the cause of death.

Rotenone

Hartzell was unable to detect injury to nerve tissue in insects killed with rotenone following the toluidine blue technique used in his previous studies. Haag working on higher animals notes the most characteristic effect of rotenone is on respiration—death being due to respiratory failure. Desiccation and probably starvatios are factors in the ultimate death of insects treated with rotenone and its allied toxic compounds. Anyone acquainted with moribund flies cannot fail to have noted the weight loss in the insects which linger on for days after treatment.

Thiocyanates

Taubman has reported that certain of the aliphatic thiocyanates are nerve poisons affecting the cerebral axis of animals. Hartzell and Wilcoxin in their studies of a series of thiocyanates tested gamma thiocyanopropyl phenyl ether for its effects on the nervous system of the meal worm, following their toluidine blue technique. The abdominal ganglia of meal worm larvae killed with this compound showed cellular degeneration, but to a lesser degree than with larvae killed by pyrethrum. It is evident from these studies that the thiocyanates in general kill insects through injury to nerve tissue.

Pyrethrum

The paralytic action of this insecticide has been noted for years as has also the prompt recovery from sub lethal doses. Although a contact insecticide, as are the thiocyanates, it has been fed insects and when ingested kills them. Insects treated with pyrethrum, either as powder or in liquid sprays, react similarly to the experiences reported by Shafer for gasoline and kerosene vapor (1) excitement (2) depression and loss of movement (3) anaesthesia.

Kruger working with Corethra observed changes in the hypodermis muscles and nerves when the larvae were treated with suspensions of pyrethrum flowers in water. A vacuolated condition in the nerve ganglia was quite apparent—not found in the controls.

Hartzell and Wilcoxin in a series of studies on pyrethrum involving meal worm larvae and adult grasshoppers using the toluidine blue technique found lesions throughout the main parts of the central nervous system as a result of external applications of pyrethrum extract. From these investigations the authors conclude that death is caused by destruction of the cells of the central nervous system, followed by paralysis.

Klinger studied histologically nerve lesions in the larvae of the gypsy moth after application of pyrethrum extract. He reports the nerves isolated and surrounded by spaces whereas in the checks the tissue was not distorted. He found a measurable reduction in the flow of nerve impulses through pyrethrum - injured nerves, giving direct proof of the action of pyrethrum on insect nerves.

Hartzell and Scudder investigated the effects of pyrethrum on the house fly, selecting moribund flies for histological study to avoid any post mortem degenerative changes. Particular attention was given the central nervous system and the associated fat and muscle tissues. At this stage the effects of pyrethrum are characteristic, it causing a "widespread clumping effect on the chromatin of the nuclei." Destruction of the fibre tract of the brain, separation of the cells in the fat body, and loss of sharp stainability in muscles were noted. Wigglesworth notes that in the bed bug paralyzed by pyrethrum the spiracles are closed and react to carbon dioxide. He confirms the destructive action of pyrethrum on the nervous system, and concludes that desiccation cannot be the principal cause of death from pyrethrum. Similar histopathology was reported in moribund larvae.

Isobutyl Undecylenamide

The effects on insect tissue induced by this compound were reported by Hartzell and Scudder in moribund flies. The compound causes a dissolution of the chromatin which is quite characteristic in the tissues studied. The evidence of the action of isobutyl undecylenamide on the postretinal fibre layer of the optic apparatus situated close to many tracheae may mean this local effect is due to tracheal penetration. This compound does not alter stainability of muscle striations.

Pyrin

Histologically this mixture of pyrethrum and isobutyl undecylenamide combines the effects of both. Hartzell and Scudder report it producing muscle lesions like pyrethrum, with clumping of the chromatin, but in the fat cells near the brain the nuclei show chromatolysis, the action of isobutyl undecylenamide. The breakdown of the interior ganglionic mass is greater than that shown for pyrethrum.

The above findings outline briefly the principal morphological and histological changes in insect tissues resulting from applications of certain insecticides. A possible explanation of "activation" from a histological viewpoint is given where the effects of pyrethrum and isobutyl un-

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decylenamide in combination have been studied. It is hoped that more data on the actual manner by which insecticides kill will be accumulated, and work is now in progress.

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Way It Looks in Washington

(*From Page* 33)

which is said to be 9/10 of a cent above prices recently resulting under an old formula. The processor is required to absorb the increased cost of rotenone root. Sole importer at present is the Commodity Credit Corporation. OPA said the change safeguards processors and insecticide manufacturers from a threatened increase in costs of the root imported from South America.

6. Issued a maximum price regulation for packaged cosmetics, including shaving soaps and liquid shampoos, and affecting about 200 types of cosmetics with several thousand trade names, annual sales volume of over $500,000,000 and a market which has increased 40 per cent since 1939. The new prices are in MPR 393, effective May 26.

7. Placed the packaged drug industry, manufacturers, wholesalers and retailers of proprietary preparations and pharmaceuticals, under a separate price regulation, numbered 392, also effective May 27. Under it, proprietary manufacturers are required to print the retail selling price on package or label.

WPB has simplified allocation procedure governing isopropyl alcohol, which is used in cleaning compounds, drugs and pharmaceuticals, disinfectants and germicides, etc. WPB said the situation has become easier since March, 1942, and that "rigid control is not necessary at this time."

The Wage and Hour Division, Department of Labor, has set up Industry Committee No. 60 for the Chemical, Petroleum and Coal Products, and Allied Manufacturing Industries, to recommend a minimum hourly wage in those industries. Specifically included are the manufacture from petroleum, coal or natural gases of soap and glycerine, candles, essential oils; nitrated, sulfonated and similarly processed oils, insecticides and fungicides. However, excluded are the rendering and refining of marine and animal fats and oils; also products in the drug, medicine and toilet preparation industry, cottonseed and peanut crushing industry and vegetable fats and oils industries, as defined in wage orders for such industries.

Tipton R. Snavely, Professor or Economics, University of Virginia, is chairman of the committee, which includes 27 members. The committee meets June 8, at 165 West 46th Street, New York, to investigate, take testimony and recommend to the Wage and Hour Administrator minimum wage rates for employees.

The National War Labor Board announced that from October 3, 1942, to March 31, 1943, it received 112 applications from chemical and allied products industries for voluntary wage or salary rate adjustments involving 12,254 employees. Wage adjustments were granted in whole or in part, in 81 such cases affecting 10,543 persons, while adjustments were denied in 31 cases involving 1711 employees.

WPB has amended General Imports Order M-63 by putting on List I, Macauba oil, described as "a high lauric acid oil, presently available in Brazil, used in manufacture of soap and glycerine." List I means that shipping space for such imports may be available.

WPB has amended General Preference Order M-41 to permit greater quantities of chlorinated hydrocarbon solvents for civilian use. For example, a user of carbon tetrachloride having a B-2 rating under the order may receive delivery in any month of up to 150 per cent of his average monthly consumption during the base period, (year ending September 30, 1941). Uses of such solvents include cleaning compounds, fire extinguishers, fumigation, refrigerants, chemicals and foods.

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The Effect of Oil in
ROTENONE DUST MIXTURES

H. F. Wilson and E. J. Campau

University of Wisconsin

A COMPARISON of rotenone dust mixtures with and without added oil shows that increased toxicity is obtained when compounds of an oily nature are added to these mixtures. We also have some evidence to indicate that oil added to rotenone causes a reduction in toxic values, either through physical changes or by an actual deterioration in rotenone when dusts are held in storage for a period of time. It has further been found that if stored rotenone dusts are reconditioned with 1 per cent oil, new toxic values may be produced in some dust mixtures. A recent greenhouse study of dust mixtures made in May and June, 1942, indicates that reconditioning improved all but a few.

A summary of the 1942 experiments showed that in greenhouse tests with rotenone-containing dust mixtures, pea aphid control was significantly improved by increasing the oil content of the dust mixtures from 2 per cent of oil to 4 per cent. The field data were taken from five field tests, all records being taken from the first checking period made two to four days after the dusts were applied.

The best type of oil to use and the amount to be used remain to be determined. It must also be determined to what extent oil compounds affect the physical qualities of rotenone dust mixtures.

Data now available indicate some adjuvants may cause a more or less rapid deterioration of rotenone. Unless this difficulty is overcome, it may be necessary to use the mixed dusts the same year they are made or recondition them after a year in storage. These data are presented only as a preliminary survey, but with the need for a wider spread of the available supply of rotenone it is hoped that the presentation of the data will stimulate increased endeavor along the same line in 1943, so we can be better prepared to make more effective use of the available supply of rotenone in 1944.

In all but one experiment, rain fell within 24 hours after the treatments were applied. The temperatures were approximately 70° F. and the relative humidity 40 to 60 with a saturated moisture condition within 24 hours. The wind velocity varied from an estimated 3 to 20 miles per hour. When applications were made June 30, the wind speed was estimated to be 15 to 20 miles per hour. The vine growth varied from 5 to 18 inches and the treated fields included both Alaska and

Table 1.—The effect of oil and rotenone content of dust mixtures on the control of the pea aphid in field plots during 1942.

Per cent of rotenone	*Per cent of oil*	*Mixture per acre pounds*	*Number of replicates*	*per cent Control*
	Experiment A—June 5			
0.75	1	30	4	88
0.5	1	33	4	86
0.25	1	32	4	80
0.1	2	30	4	72
Difference required for significance		—	—	8
	Experiment B—2 days after treatment—June 6			
0.75	1	62	4	90
0.5	1	48	4	86
0.25	1	66	4	87
0.25	4	66	4	84
0.1	2	60	4	83
	Experiment B—12 days after treatment—June 6			
0.75	1	62	4	93
0.5	1	48	4	91
0.25	1	66	4	86
0.25	4	66	4	86
0.1	2	60	4	76
Difference required for significance		—	—	6
	Experiment C—June 19			
0.75	1	29	2	89
0.5	4	32	1	87
0.5	3	41	2	85
0.5	2	35	1	74
0.5	0	36	1	71
0.25	4	35	1	89
0.25	2	31	3	80
0.1	4	45	1	71
	Experiment D—June 30			
0.75	1	25	4	82
0.5	4	29	4	80
0.5	3	21	2	85
0.5	2	24	3	88
0.5	1	35	4	78
0.5	0	31	4	74
0.25	4	24	3	81
0.25	2	24	3	78
0.1	4	33	3	73

Results for each date are comparable because they were a part of one test series. The per cent control is based on a series of check areas in each field.

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Table 2.—Summarized data of greenhouse tests with variable rotenone and oil dust mixtures made in late May and early June, 1942.

% Rotenone	% SAE10	% Adjuvant	Replicates	% Control	Avg. No. young left on rep. plants
.75	1		10	86	9
.75	1		10	92	8
.75	1		10	83	20
.5	0		10	65	32
5	1		10	77	29
.5	2		10	85	8
.5	3		10	97	2
.5	4		10	96	3
.25	1		10	74	17
.25	2		10	82	6
.25	4		10	97	3
.25	1.5	Shell Oil—1.5%	10	98	2
.25	2	K-58, 2%	10	90	6
.1	2		10	83	14
.1	4		10	93	12
.1	1	IN-347, 1%	10	85	9
.1	1.5	Prop. Laur.—1.5	10	90	9
.1	1.5	Prop. Laur.—1.5	10	92	6
.1	1	Prop. Laur.—1% +.5% Nic. Sul.	10	90	9
Check			10	4	100+

Difference required for significance between dust mixtures, 12 per cent.

sweet varieties. The summary of the data is shown in table 1.

Discussion. The per cent control is clouded to some extent by high rates of application in some fields but this does not change the general consideration of the data. Not too much importance can be given to the rate of application because it has been frequently noticed that the per cent control is not appreciably increased above a certain point, regardless of how much material is applied. It now appears that not more than 30 to 35 pounds of dust per acre are necessary and that greater amounts are wasted.

Greenhouse Data

WHEN the field dusts were mixed in 1942, samples were taken in paper bags and brought in for testing in the greenhouse. These samples in open bags were kept in the laboratory where they were subjected to conditions of heat and cold, varying from 50 to 90° F. Most of the time the relative humidity was below 50. The dust mixtures were therefore subjected to conditions more severe than in an ordinary warehouse where the temperature would be lower during the winter.

The tests were made between October 20, 1942 and January 15, 1943, and are based on two test plants infested with 15 aphids each and replicated five times. The temperature varied from 65 to 70° F. and the relative humidity varied from 40 to 60. Pyrax ABB was used as the disperser. Rate of application, 500 milligrams per test. Three series of 0.75 per cent rotenone and 1 per cent SAE10, and two series of 0.1 per cent rotenone with 1.5 per cent propylene laurate and 1.5 per cent SAE10 oil are included, as they were used as checks in comparing other dust mixtures. The data is summarized in table 2.

Discussion. It is believed that the data from this series of greenhouse tests provide a clear indication of what may be expected of rotenone dust mixtures with variable amounts of rotenone and oil.

Significant differences were found between 1 per cent and 3 per cent oil. The differences between 2 per cent and 3 per cent oil are only partly significant, but they are sufficiently large to warrant the conclusion that 3 per cent oil can generally be expected to give higher toxic values than 2 per cent.

Significant differences do not appear between dust mixtures containing 3 and 4 per cent SAE10 "Pure" oil compared with similar dusts containing a special Shell oil, Dow K-58, du Pont IN-347 and propylene laurate, and these may be taken as 3 and 4 per cent oil. Later tests indicate that consideration should be given to studies of oil compounds which may prove more desirable than SAE10 oil.

On February 27, three of these dust mixtures were compared with other fresh dust mixtures using 200 milligrams of dust per application, and a definite reduction in toxicity seemed to exist with all three. A dust mixture made in 1940 with .1 per cent rotenone and 1 per cent oil gave zero control. Some reduction might have been due to the small dosage of 200 milligrams but a freshly mixed dust with only .1 per cent rotenone gave good control.

The comparison between these dusts is shown in table 3.

These results clearly indicated that changes were taking place in the 1942 samples so another test was run on March 6, in which a series of conditioned and unconditioned dust mixtures from 1942 were compared. The results of these tests are shown in table 4, which also includes the data from a second test with a series of some of the same dust mixtures made on March 10.

Discussion. Two dust mixtures acted peculiarly in that when recon-

Table 3.—A comparison of old and freshly mixed dusts.

% Rotenone	% SAE10	% Adjuvant	Replicates	% Control	Avg. No. young per plant
.75 1942 mix	1	.....	2	27	47
.5 1942 mix	3	.....	2	57	41
.25 1942 mix	1.5	Shell Oil—1.5%	2	71	31
.75 1943	3	.....	2	100	3
.75 1943		Prop. Laur.—3%	2	70	23
.1 1943	3	.....	2	80	15
0 1943	3	Pyrax only	2	20	52
.1 1940	1	.....	2	0	15
Check				0	

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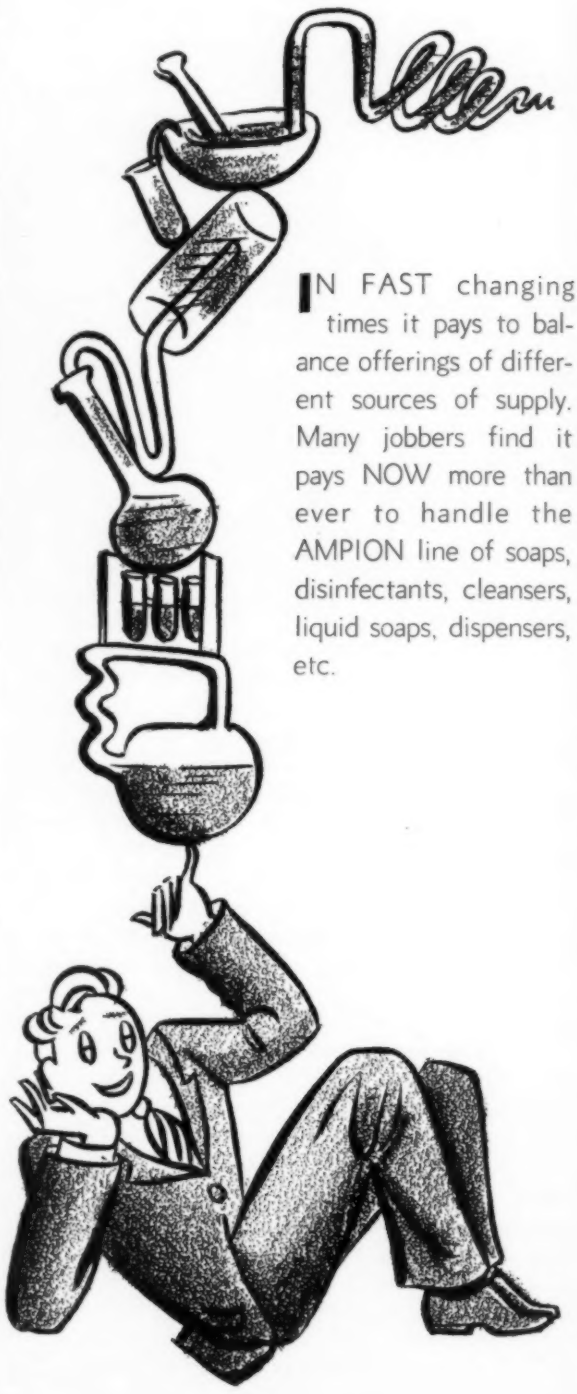

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Table 4.—A comparison of 1942 dust samples with a series of the same dusts reconditioned with 1 per cent SAE10 oil.

% Rotenone	% SAE10	% Adjuvant	Rec. with 1% SAE10	Replicates	% control March 6	Avg. No. young per plant	% control March 10
.75	1	—	—	2	50	100	57
.75	1	—	1	2	40	91	36
.5	3	—	—	2	60	38	60
.5	3	—	1	2	87	25	60
.5	2	—	—	2	63	37	57
.5	2	—	1	2	70	30	80
.5	1	—	—	2	70	27	37
.5	1	—	1	2	83	10	50
.25	2	K58-2%	—	2	77	6	
.25	2	K58-2%	1	2	90	9	
.25	1.5	Shell Oil-1.5%	—	2	87	12	
.25	1.5	Shell Oil-1.5%	1	2	87	11	
.25	1.5	Loro-1.5%	—	2	80	30	
.25	1.5	Loro-1.5%	1	2	84	23	
.1	1.5	Prop. Laur.-1.5%	—	2	50	67	
.1	1.5	Prop. Laur.-1.5%	1	2	84	37	
.1	4	—	—	2	73	15	
.1	4	—	1	2	93	3	
—	—	4% Nic. Sul.	—	2	30	67	
—	—	4% Nic. Sul.	1	2	0	120	
.1	1	Lethane 60-2%	—	2	38	56	
.1	1	Lethane 60-2%	1	2	60	53	
.1	1	1940	—	2	0	100+	
.1	1	1940	1	2	57	86	50

ditioned with oil two gave poorer control than the unconditioned dusts. The two were .75 per cent rotenone with 1 per cent oil and a 4 per cent nicotine sulfate dust. Most of the other dusts showed increased toxicity when reconditioned. We expected all dust mixtures containing only 0.1 per cent rotenone to show a large decrease in toxicity. Therefore we were surprised to find that two of the dust mixtures containing only 0.1 per cent rotenone still showed fairly high toxic values. Tests with the dust mixture made in 1940 and containing only 0.1 per cent rotenone and 1 per cent oil showed that this dust still had some toxic value.

Roach Powder

Tests with the American cockroach (*Periplaneta americana*) indicate that a dust containing 5 per cent of 4,6-dinitro-ortho-cresol in talc or redwood-bark flour is more effective than pyrethrum or sodium fluoride. Its use may be limited somewhat by its toxicity to household pets, and by its property of staining floors and furniture. James B. Gahan. J. Econ. Entomol. 35, 669-73.

Floor Wax Specification

(*From Page* 115)

surface. Remove the test panel from the detergent solution, rinse it thoroughly with clear water at 40°-50° C. (104°-122° F.), and wipe dry with a soft, clean cloth. Observe the panel for completeness of removal of wax film after drying.

Note 1. A saturated solution of calcium nitrate ($Ca(NO_3)_2.4H_2O$) at 25° C. (77° F.) gives 50 per cent relative humidity.

Bedbugs and Their Control

(*From Page* 111)

important is that the spray must be forced into all cracks and crevices. The mere filling of a room with fog, as for fly control, will do little more than activate the bugs. The liquid spray must actually contact the bodies of the bedbugs which means that the spray must be forcefully driven into the hiding places of the insects. To accomplish this, special equipment is required. It goes without saying that the cheap, small, hand sprayers or atomizers are inefficient. The compressed air atomizers used for cattle sprays are better and the electric sprays are ideal. Hockenyos* recommends a solid stream or fan type spray for cracks and crevices and a fog spray for use on bed springs and mattresses. The tendency to skimp on spray has all too frequently resulted in unsatisfactory control. Spraying should be done when the building or room is warm so that the bugs are active.

Direct Hand Application

The idea still seems to be prevalent that bedbugs can be controlled by applying liquids to cracks and crevices by means of an oil can or a feather wetted with the fluid. Presumably many a bed has been so treated and probably many a bedbug killed, but it is very doubtful if anything but partial control was obtained in most cases. Commonly recommended materials include kerosene, gasoline, alcohol, a saturated solution of corrosive sublimate in alcohol and boiling water. On the other hand, as in army barracks, where official action in controlling infestations is often delayed, hand treatment of beds is advisable. It is recommended that the bed be prevented from touching the walls, the legs placed in shallow dishes of kerosene and the bed itself either thoroughly sprayed or all the cracks treated by hand applications. The filling of cracks in infested rooms with various materials (pastes made from derris resin and petrolatum,** ox gall-formaldehyde mixture)*** can hardly be considered a practical form of control, although pest control operators have employed such methods in treating stubborn infestations that would not yield to customary treatments. For the average home, it is better to remove all loosened wall paper or repaper. It is also advisable to fill all cracks in the walls and floor, window casings, moldings, etc., with putty or a proprietary crack filler and follow with a coat of paint or varnish. The application of a heavy coat of kalsomime to all cracks is claimed to have given relief in badly infested buildings.

The use of powders likewise cannot be considered a practical measure of control because of the difficulty of getting the powder where the bugs are hiding, unless special small hand dusters are employed. Insect powder has been frequently recommended for sprinkling in the bedding to obtain relief from bedbugs.

By way of summary it may be reiterated that while serious, hard-to-get-at infestations are best controlled by fumigation by licensed operators. ordinary household infestations can be checked by persistent treatment of all hiding places of bedbugs with a liquid type of spray applied under driving pressure.

* Op. Cit.
** Pests 8(5):12-16 (1940).
*** Chem. Zentr. I, 3538 (1940).

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NEWS

O.D. Chemical Buys Plant

The O.D. Chemical Corp., 60 E. 42nd St., New York City, has acquired a three-story factory building at Tuckahoe, N. Y., where production of their new odorless disinfectant, "OD-30," will be conducted on an extensive scale as soon as improvements and installations of machinery can be completed.

New McK & R Pyrethrum Salve

McKesson & Robbins, Inc., Bridgeport, Conn., are introducing a new pyrethrum ointment under the name "A-200." Said to be non-toxic, non-irritating and non-staining, it is recommended for use in the control of lice and other body infestations. The original research work on the product was done by Dr. Walter K. Angevine, medical officer of Washington, D. C., penal institutions, and clinical tests were reported in an article in the August, 1941, issue of *Soap and Sanitary Chemicals*. The product was perfected in collaboration with Dr. A. L. Omohundro, technical director of McKesson & Robbins.

Plowfield Leaves Hollingshead

William Plowfield, formerly director of industrial sales for R. M. Hollingshead Corp., sanitary products manufacturers, Camden, N. J., has resigned to take a position with Hodson Corp., manufacturers of high pressure lubricants. No successor has been named as yet.

Wallace Thomas Dies At 55

Wallace Thomas, 55, died suddenly of a heart attack at his home in Avalon, Pa., a suburb of Pittsburgh on May 8. He was assistant manager of specialty sales for Gulf Oil Corp., Pittsburgh, and had been with the firm since 1917. Well known in the insecticide trade, he was a member of the board of governors of the National Association of Insecticide & Disinfectant Manufacturers. Prior to joining the Gulf organization, Mr. Thomas, a native of Pittsburgh, was the sales manager of a brick plant and from that

WALLACE THOMAS

went into the real estate business. He joined Gulf in 1917 as a stenographer, later being promoted to assistant purchasing agent. He took time out to serve in the first World War, and rejoined Gulf as a buyer upon his discharge from the Army. In 1926 he joined the specialty department, where he was assistant manager until 1928. From 1928 to 1934 he served as manager. He was succeeded in this position by W. E. Dermody, and reverted to assistant manager.

Standard Tar Products Moves

Standard Tar Products Co., manufacturer of disinfectants, has moved from 1621 N. Commerce St. to 2456 West Cornell St., Milwaukee, Wisconsin.

Army To Use More Aerosol

The army will buy millions more of the aerosol type insecticide containers this year, through the Jersey City Quartermaster Depot, Major Robert Hamilton, Q.M.C. Procurement Officer-in-Charge, is reported as stating in a recent release from the Jersey City Depot. The first order, placed late in 1942, according to the public relations office of the Jersey City Depot, was for 140,000 containers. In addition the Depot has also been buying insect repellents "by the million, liquids as well as powders."

V.-P. Adams, Inc., Moves

V.-P. Adams, Inc., manufacturers of sanitary products, Jamaica, N. Y., recently moved to new and larger quarters at 139-41 Queens Boulevard. The company, which is celebrating its tenth anniversary, was formerly located at 146 Archer Ave., Jamaica. Announcement of this step in the expansion of the business was made by Vincent P. Adams, founder and present head of the company.

American Home Products War Aid

Several notable ways in which American Home Products Corp., and its subsidiaries are making contributions to the cause of winning the war are outlined in the corporation's Year Book for 1942. This report, which was made public recently, augments the corporation's financial record for the past year. Alvin G. Brush, chairman of American Home Products Corp., presented the report.

LaMaison Becomes Penetone

LaMaison Products, Inc., polish makers, recently changed its name to The Penetone Corp. and has moved its plant, laboratories and general offices from Brooklyn, to newly acquired building at Tenafly, N. J.

N. Y. Insecticide Color Law

Insecticides and other vermin-exterminators containing an arsenical or a fluoride compound are required to be colored a distinct blue or green as the result of a provision just added to the New York State sanitary code by the Public Health Council. This ruling became effective June 1. The regulation further requires that the sale or use of any poisonous substance as an insecticide or exterminator be prohibited unless the container bears a label printed with the word "poison." The container must also carry the symbol of the skull and crossbones in red ink, followed with the words "Cau-

tion—This exterminator or insecticide contains (name of the poison), a deadly poison." The antidote and treatment therefor and the name and address of the manufacturer or packer must be shown. If the substances are sold at retail in quantities of five pounds or less, the container must be of the nonrefillable type.

Aero Head Recuperates

Curt Hoenigsberg, chief chemist and vice-president of Aero Chemical Co., manufacturers of insecticides, disinfectants, soap, waxes and cleaners, Williamsport, Pa., was recently discharged from Williamsport Hospital. He had undergone an operation early in February.

Professional Exterminators Meet

Members of the Professional Exterminators Association had two more meetings last month at the Hotel Commodore, New York, continuing their series of educational lectures on insect identification and control. The May 3rd and May 17th meetings were given over to study of the ant. Instructions for calculating dosage of rat baits were also given at the May 3rd meeting by M. F. Oachs, Exterminating Materials Co. The secretary reports that eight new members have recently joined the association.

MM&R Expand Facilities

Magnus, Mabee & Reynard, Inc., essential oils, New York, have just announced the purchase of the building at 123 Watts St., New York, which adjoins the receiving and shipping division of their present plant. The new building, will be used for storing materials and equipment. Another addition to the office and warehouse facilities of MM&R's Chicago headquarters was made recently.

Three new west coast MM&R representatives have just been appointed to cover all industries excepting wholesale drugs. They are Braun Corp. of Los Angeles, for Southern California and Arizona; Braun, Knecht, Heimann Co. of San Francisco for Northern California and Nevada; and Van Waters & Rogers of Seattle, Portland and Spokane for Oregon, Washington, Western Montana and Utah,

Simon Selig Dies

Simon S. Selig, nationally prominent in the sanitary chemicals and insecticide industry as president and

SIMON SELIG

founder of The Selig Co., of Atlanta, Ga., died May 10 in Hot Springs, Ark. Born 64 years ago in Atlanta, the son of the late Sigmund and Sophie Selig, he established the Selig Company in 1896. He had served as president of the National Sanitary Supply Association; was a former member of the board of directors of the National Association of Insecticide and Disinfectant Manufacturers, and was a member of the American Soap and Glycerine Producers Association. He was also president of The Selig Co. of Texas, Inc., Dallas, Texas.

A past president of the Atlanta Masonic Club, Mr. Selig was a Scottish Rite Mason and a Shriner. He also was a member of the Atlanta Kiwanis Club and the Atlanta Chamber of Commerce, and had served as a director of the Fulton National Bank in Atlanta. He leaves his wife; a daughter, Mrs. Lyons B. Joel of Atlanta; a son, Capt. Simon S. Selig, Jr., U.S.A.; two sisters, Mrs. Julius Simon of Atlanta and Mrs. Alvin L. Mayer of Cincinnati, O., and a brother, Albert S. Selig of Atlanta.

Hopkins Returns to National Can

Arthur G. Hopkins was elected executive vice-president in charge of engineering and manufacturing divisions of National Can Corporation at a recent meeting of the board of directors. Mr. Hopkins joined the company in 1919 and resigned in September 1941 to become vice-president in charge of operations for Canonsburg Steel and Iron Works and Tate Jones Furnace Company. He remains an officer and director of both companies.

Heider Buys New Plant

Heider Chemical Co., makers of janitor supplies, Columbus, O., have acquired a three-story building adjacent to their main plant. The new quarters will be used for manufacturing purposes.

Proprietary Ass'n Meets

The war and its impact on cost, supplies and production were the points of major interest for discussion at the 61st annual convention of the Proprietary Association of America, held at the Biltmore Hotel, New York, May 18-19. Representatives from various government agencies, supply houses and manufacturing concerns spoke. Robert Deupree of the drugs, cosmetics and soap section, chemical and drugs branch of the OPA gave a detailed explanation of the pricing plans of the OPA, with especial attention to the recently issued regulation affecting drugs and cosmetics. Dr. R. C. Roark, in charge of Insecticide Investigations, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, discussed the "War's Effect on Insecticide Material." In the scientific section, Dr. George F. Reddish, of Lambert Pharmacal Co., St. Louis, Mo., has been succeeded as chairman of the section by Dr. Joseph McIntyre of Dr. Jayne & Son, Inc., Philadelphia.

Ostertrom Velsicol V. P.

R. C. Osterstom, for the past twenty years connected with Pure Oil Co., has just announced his resignation to accept the position of vice-president in charge of manufacturing for Velsicol Corp., Chicago. He will divide his time between Chicago and Velsicol plant at Marshall, Ill. Velsicol Corp. produces petroleum chemicals and derivatives, including aromatic hydrocarbons, high solvency naphthas. insecticides, resins and core oils.

Sanitary Supply Assn. Meets

THE National Sanitary Supply Association, meeting in Chicago May 24 to 26, centered convention discussions on wartime problems affecting the sanitary supply business, including the Controlled Materials Plan, manpower, wages and the supply situation. Other topics discussed included public health and the jobber's relations to government procurement agencies. A banquet and floor show rounded out the program and not to be overlooked was the trade show in which over a score of manufacturers participated. Registration totalled close to 200 persons.

Opening the convention, Marshall L. Magee of the T. F. Washburn Co., and president of the Association, commented on the industry's achievements in meeting the challenge of war-time conditions. "Even with all the necessary curtailments," said Mr. Magee, "no one has suffered materially. No epidemics have broken out and sanitary conditions today are better than a year ago. We must not falter on the job we are pledged to do — to maintain cleanliness and sanitation for all the world, both in war and peace.... Somehow we must find a way to protect the health of 125 million people here and the rest of the world as well, because disease can kill more people than all of Hitler's and Tojo's bullets."

For a brief moment the assembly paid silent tribute to two deceased members, Edmund Kratsch, former secretary, who died during the winter, and Simon S. Selig, of the Selig Co., Atlanta, Ga., who died at Hot Springs, Ark., May 10.

Harry Apple, of Milwaukee, Wis., newly selected secretary of the Association, reported an increase of thirty new members during the year, bringing total membership to 181.

Discussing proposals for strengthening the industry and the organization, Mr. Apple suggested adoption of the term "sanitation engineer" for all those engaged in selling sanitary supplies. Backed by scientific training so that they can advise intelligently on sanitary problems, the term, he declared, would add dignity to the salesman's position, while the realization that the industry renders a service as well as delivering merchandise, would immeasurably strengthen its standing.

MARSHALL L. MAGEE
Re-elected President

Lead off man in the discussions of war-time problems was Joseph Fuld of Fuld Bros., Baltimore, whose paper on "Priorities and What They Mean to the Sanitary Supply Industry" reflected the close contact which he has had with official Washington of late. "Priorities," Mr. Fuld declared, "are our salvation." They are, he said, "a device to determine who shall get what first, and can work either for or against us. If made to work for us, we shall stay in business; if against us, we'll go out of business and stay out." The industry, he pointed out, is recognized as essential, but he warned that "there are degrees of essentiality and it is up to us to see that sanitary supplies remain essential by availing ourselves of the proper ratings."

Many sanitary supply firms, he said, would probably not think to ask their customers, such as hospitals, restaurants and churches, for preference ratings, but under the new Controlled Materials Plan 5-A, he said, that is exactly what should be done. End use and end users go hand in hand with preference ratings and manufacturers who are not requesting end use information will, he predicted, be sold out, if the war continues another year.

U. R. Brake of WPB's Chicago priorities office, answered questions on the new C.M.P. regulations. The problem, he said, is to do as much in one year as normally in twenty and yet not take too much away from civilian supplies. The new C.M.P., he asserted would take care of the situation, yet not be too complicated. C.M.P. 5, issued May 14, he explained, deals with maintenance, repair and operating supplies for all industries, while C.M.P. 5-A, issued May 15, covers dealings with government agencies and institutions. Manufacturers, he said, are, on the whole, taking kindly to the plan and believe it will solve a lot of their problems.

A rather grave forecast of what employers can expect from the Selective Service was made at Tuesday morning's session by Capt. J. B. Morgan, the Army's occupational advisor on selective service in the Chicago area. "This is a hard fact," said Capt. Morgan, "but before the war is over, many of you will be forced out of business unless you find it possible to employ men over 38 or women and handicapped men where it is possible to use them. I advise you to try and make the change."

While the War Manpower Commission recognizes the sanitary supply business as essential, Capt. Morgan said, that does not mean that male employees in this field cannot be inducted. It is, he explained, merely a guide for draft boards in filling their quotas. "You can ask for deferment and you will at least receive consideration," said Capt. Morgan. "But it is absolutely impossible to guarantee that the man will get it, if he is between 18 and 38 years of age, regardless of how skilled he may be."

The government's apparent intention to tighten up on its wage stabilization program in conformity with the President's "hold the line" anti-inflation order was discussed by

Arthur F. Everding, wage stabilization coordinator, Wage and Hour division, U. S. Dept. of Labor.

Dr. W. W. Bauer, director of the American Medical Association's Bureau of Health Education, talked on "Health and Sanitary Problems in Time of War." Regardless of any statements to the contrary, Dr. Bauer asserted, the health of the American people is better than ever before in our history. He pointed out, however, potential danger spots in the overcrowded armament production centers, where beds are being occupied in three shifts, around the clock, bathing and sanitary facilities are inadequate and mushroom public eating places flourish without attention to the sterilization of dishes. Such abnormal conditions, he warned, breed epidemics.

Cleanliness, which has in the past played so large a part in keeping America healthy, should not be taken too much for granted and the part played by soaps, detergents and disinfectants, he declared, cannot be overemphasized. In stressing cleanliness, members of the sanitary supply industry, he said, are acting as good citizens, and not for business motives only. Not to be overlooked, he reminded his hearers, is the importance of cleanliness in food processing plants, in milk distribution, in the public schools and at other points in the social structure.

Talking on "The Relationship Between Jobber, Manufacturer and Government," Jack Milo of Hysan Products Co., Chicago, discussed the practice of manufacturers in bidding against jobbers on government orders in the jobber's territory. The manufacturer, he asserted, is not compelled to sell the government anything. He added an eloquent plea to "let the jobber have a break." In rebuttal Searcy Ridge of Gateway Chemical Co., Kansas City, Mo., was accorded the floor to argue for closer cooperation between manufacturer and jobber. He cited instances where such team work has produced results otherwise difficult if not impossible of achievement.

Dr. E. H. Bronner, chemist with the Allen B. Wrisley Co., Chicago, presented a detailed review of the outlook for the soap and cleaning materials industry. He found, on the whole, great cause for viewing the future optimistically. New materials and substitutes are here to stay and the big problem, as he viewed it, is to show the consumer how to make less go farther.

In a fast-moving symposium on the question "Can we get supplies and how?" seven industry leaders reported on conditions in their field, as follows:

Insecticides and disinfectants, Jack Varley, Baird & McGuire, St. Louis.

Mops, brushes and cotton goods, J. F. Hohenadel, Illinois Duster & Brush Co., Chicago.

Varnishes and floor finishes, Harry Lawson, Federal Varnish Co., Chicago.

Galvanized ware, E. G. Harvey, F. H. Lawson Co., Cincinnati.

Sponges and chamois, Tom Opie, Opie Brush Co., Kansas City, Mo.

Mopping equipment, Lee N. Vedder, White Mop Wringer Co., Fultonville, N. Y.

Basic chemicals, J. A. Meinhardt, J. A. Meinhardt Co., Chicago.

Tom Opie of Opie Brush Co., Kansas City, Mo., was toastmaster at the banquet. Highlighting that affair was the sale of $44,500 in war bonds at the auctioning off of the exhibit of Geerpress Wringer, Inc., which had been donated by Elmer H. Bard, company president.

Fred Palmer of Palmer Products, Waukesha, Wis., paid $14,500 for one bucket. Lee Chandler of Chandler Brush Co., paid $8,500 for another. One wringer went for $5,500, another for $5,000 and a bundle of mop sticks for $2,000. Resale of some of the items brought in another $9,000.

Marshall L. Magee of the T. F. Washburn Co., Chicago, was re-elected president of the Association for the third successive term. Donald F. Peatee, Mellocraft Co., Toledo, was chosen as new vice-president and S. J. Bockstanz, of Bockstanz Bros., Detroit, was retained as treasurer. A new Board of Directors was elected as follows:

Louis Herzog, Riddiford Bros., Inc., Chicago; R. E. Faust, Dust-All Mfg. Co., Peoria, Ill.; J. M. Booth, J. M. Booth Co., El Paso, Tex.; C. E. Krebs, American Standard Mfg. Co., Chicago; Ben Slicting, Hercules Powder Co., Milwaukee; Lee N. Vedder, White Mop Wringer Co., Fultonville, N. Y.; R. M. Lockhart, Candy & Co., Chicago.

Baird & McGuire, St. Louis, introduced a new product, "B-M Special Cleaner" at the convention trade show, with the slogan "Having everything that will clean anything." An offer of one gallon free was made to convention attendants. The company's line of insecticides, disinfectants and sanitary compounds was also shown, with Jack Varley in charge.

Fuld Bros., Baltimore, presented a large display of their complete line of sanitary chemicals and other products, with Joseph Fuld in charge. Featured here was a new product, "Fuldicide," offered as "Our Post-War Baby," which will not be available until after the war ends.

James Good, Inc., Philadelphia, had a 75th anniversary display of soaps, waxes, disinfectants and insecticides, available in bulk or under private labels. W. W. Bodie and A. A. Skilton of the Philadelphia sales staff, had charge.

J. A. Meinhardt & Co., Chicago had a new dishwashing detergent "D-P," on display, developed as a replacement for the tetrasodium compounds. Also shown was "K-M-85," a new deodorant and moth repellant block recently added to the company's line. Mr. Meinhardt was on hand, assisted by a number of staff salesmen.

Hysan Products Co., Chicago, has a colorful display of their complete line of sanitary chemical specialties, numbering around 300 products. F. E. Cohn of the sales staff supervised the exhibit.

Steiner Sales Co., Chicago, displayed "O-D-30," new odorless deodorizer, for which the company is general sales agent in the United States and Canada. V. K. Breininger, vice-president, and J. G. Mayer, sales manager, in charge.

(*Turn to Page* 133)

Develop Sprayer Plans

THERE is enough blackplate available for the manufacture of two million sprayers, the National Association of Insecticide & Disinfectant Manufacturers has advised its members in a recent bulletin. A series of conferences have been held with WPB officials over recent weeks in an attempt to clear the sprayer bottleneck, and it now appears that favorable consideration will be given by the WPB to requests from sprayer manufacturers for the release of metal to manufacture these sprayers. The quantity which may become available is understood to be about one-third the number of sprayers manufactured in 1942.

In the NAIDM bulletin the association recommends that the following procedure be followed:

1. Restrict your orders to 8-oz. and 16-oz. sprayers, — approximately 50% of each.

2. The reservoir is to be of glass.

3. Have the sprayers made plain —no advertising.

4. Place your order for your share of these sprayers with a sprayer manufacturer, asking the sprayer manufacturer to apply on Form PD-500 to the War Production Board, Insecticides and Fungicides Unit, Chemicals Branch, Temporary Building S, Washington, D. C., for permit to manufacture these sprayers. (This assumes that the sprayer manufacturer with whom you place your order is in possession of the necessary steel to manufacture the sprayers.)

At the time you place your order with the sprayer manufacturer, write direct to the War Production Board, Insecticides and Fungicides Unit, Chemicals Branch, Temporary Building S, Washington, D. C. with the following information:

1. That you have placed an order for..... 8-oz. sprayers for.....16-oz. sprayers with.....(Insert name of sprayer manufacturer).

2. In the year 1942 you sold .....sprayers.

This information must be in the hands of the War Production Board prior to the receipt by them of the Form PD-500 from the sprayer manufacturer. You may inform the sprayer manufacturers that you have every reason to believe that these applications will be given consideration, thereby making use of the metal which has previously been frozen. Your orders should not be for more than one-third of your 1942 sales. Your orders should be placed, as far as possible, with sprayer manufacturers in the No. 3 and No. 4 areas.

◆

Announce Bacteriology Courses

The Philadelphia College of Pharmacy and Science has announced the opening of a new term on June 28 for students in bacteriology, biology, chemistry and pharmacy. The courses will be given on an accelerated plan.

◆

Elect Cooling Crown V.-P.

S. Carle Coo'ing, formerly general sales manager, was recently elected vice-president in charge of packers can sales, at the annual meeting of Crown Can Co. Associated with the can business his entire working life, he has been employed in various capacities for such firms as Seneca Can Co., Boyle Can Co., which later became National Can Co., and in which he was a vice-president and finally Crown Can Co. In addition to his regular headquarters at the company's home office in Philadelphia, Mr. Cooling maintains a sales office in Baltimore.

◆

Pyrethrum Output to Increase

The cost of producing pyrethrum in Kenya Colony has increased sharply over the past year, according to the Greene Trading Co., New York, American representatives for the Kenya Farmers Association through which Kenya pyrethrum has been sold and shipped. They state that living costs in Kenya have increased fifty per cent, but that the farmers have in good faith shipped every available bale of pyrethrum at contract prices although cancellation was permissible. These contracts are being completed through government agencies. Kenya farmers are doing everything possible to increase production, but have been faced with year-long bad weather and the wide loss of labor to the British Army. They state that future production will be materially expanded from increased planting for which there is ample available land, and that prices will be kept close to production costs. When pyrethrum is again returned to civilian uses, there will be plentiful supplies from Kenya for all world needs.

◆

Dorris Joins Franklin Research

Dr. Thomas B. Dorris has just joined the technical staff of Franklin Research Co., Philadelphia, manufacturer of floor waxes. Dr. Dorris comes to Franklin from the engineering faculty of Manhattan College, New York. While at Manhattan he was engaged in a number of collateral activities including industrial research, supervision of a county sanitary survey and instructional service at New York colleges in connection with the U. S. war training program.

◆

AIF News Bulletin

The Agricultural Insecticide & Fungicide Association, New York, is now issuing a four-page monthly news and information publication covering the field.

Revise Rotenone Pricing

A new basis of fixing prices on rotenone root was announced on May 15 by the OPA. Amendment No. 2 to MPR No. 298, effective May 21, fixes maximum prices for 5 per cent crude rotenone root at 22c per pound which is 9/10c above the price ceiling formerly in effect. The processor is expected to absorb the increased cost, which will further reduce his possible profit margin. Establishment of a specific ceiling, however, will eliminate possible future higher costs. The new amendment also revises the basis for adjustment when root purchased tests over or under the 5 per cent active content mark. A new adjustment factor of 4 2/5c per 1 per cent for root testing over or under 5 per cent has been adopted in place of the former adjustment factor of 3½c. The new figure is believed to represent a more accurate unit value. The effect of use of the former 3½c figure was said to have been to make buyers pay a higher price per unit of rotenone content for low-grade root.

YOU SAVE *99% materials* *95% manpower*

BY UTILIZING F.M.C. RE-NEWED EQUIPMENT! F M C

Wartime conservation is more than conserving materials. It means the most strategic use of all elements in production. The W.P.B. points to Rebuilt Machinery as one of the most vital factors in conservation.

Machines Adapted To Fit Your Specific Needs

WANTED: MACHINERY
to help in War Production.
We buy from a single item to a complete plant.

FILLING and WEIGHING MACHINES
SHRIVER and SPERRY FILTER PRESSES
PULVERIZERS FOR EVERY PURPOSE
DAY, KENT OR ROSS PONY MIXERS
DAY MIXERS and SIFTERS
HOUCHIN-AIKEN SOAP CHIPPERS
FACTORY HANDLING EQUIPMENT
TANKS, KETTLES and BOILERS
PACKAGING and SEALING EQUIPMENT
SOAP PRESSES; HAND and AUTOMATIC
SOAP KETTLES, PRESSES and GRANITE MILLS
GRANITE 3x4 ROLLER MILLS
PROCTOR & SCHWARTZ DRYERS

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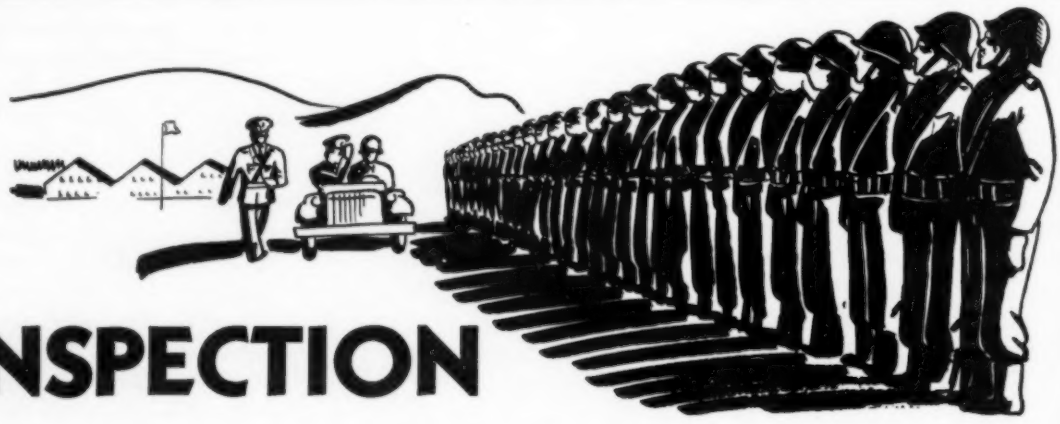

INSPECTION

Today's floor waxing jobs have to stand inspection and measure up to standard in spite of man power shortages, raw material problems, formula changes, etc. And in this fact lies one of the reasons for the success of the BUCKINGHAM line of waxes and polishes. These products are all dependable, right down the line, — for trouble-free, consumer-satisfying application. BUCKINGHAM floor products are the result of many years of specialized experience.

No Rubbing Liquid Wax (Water-resistant), Prepared Liquid Wax (the polishing type), Prepared Paste Wax, Powdered Dance Wax, Furniture Polish (White Emulsion), Metal Polish (Non-Settling), Gym Finish (Mopping Varnish), Floor Seal, Scrub Soaps, Pre-Wax Cleaner, Bowling Alley Polish and Cleaner, Wall Cleaner (Waterless), Liquid Hand Soap.

Buckingham Wax Company

Van Dam St. and Borden Ave. **Long Island City, N. Y.**

Insecticide Firms "Essential"

MANUFACTURERS of insecticides are definitely classified under the War Manpower Commission's list of essential industries under Group 17, the National Association of Insecticide & Disinfectant Manufacturers has advised its members in a recent bulletin, on the basis of a report from John D. Conner, NAIDM Washington representative. Manufacture of insecticides, disinfectants and probably cleaning compounds, advises Mr. Conner, is covered under Group 17, and soap manufacture which results in production of glycerine would be included either within Group 17 or Group 4. Where a company produces both essential and non-essential products, the work done by a particular employee, who is to be employed or who desires to change to another job, would be the controlling factor.

If an employee has not been engaged in either an essential or a non-essential activity at any time during the preceding thirty days, he is eligible to take any new job that offers.

If an employee has been employed in an area where there is a WMC Employment Stabilization Program in effect, he may transfer from one essential industry to another if he receives either from his employer or from the WMC a statement of availability. Such statements of availability can be issued if the employee is discharged, laid off indefinitely, or if it is established that he is not being employed full time or that his employment does not utilize him at his highest skill. In areas where no stabilization programs are in effect, no employees can transfer from one essential industry to another at a higher wage rate than is currently being paid them. There is no restriction on transfers at the same or lower wage rates.

As a result of the restrictions on job transferring referred to above, there have been many complaints from different quarters as to the comparative inflexibility of the system. The current prospect, says Mr. Conner, is that the War Manpower Commission will amend the order at an early date.

Group 17, referred to above, covers the following occupations:

> *"Production of Chemicals and Allied Products and Essential Derivatives Thereof:* Glycerin; turpentine, rosin and other naval stores; wood tars, oils, acids, and alcohols; plasticizers; lubricating oils and grease; animal and vegetable oils; fertilizers; tanning materials; chemical pulp; salt, synthetic rubber; coal-tar products; plastics; compressed and liquefied gases; refined sulphur; acids; caustic and other sodas; alcohols; electro-chemical and electro-metallurgical products such as carbide, sodium and potassium metals and high-percentage ferro-alloys; drugs and medicines; insecticides and related chemical compounds; synthetic textile fibers used in military equipment exclusively; grease and tallow, (explosives, flares, and other fireworks, generally classified as chemical products, are included in ammunition).

Limit Pyrethrum Use

Food Production Order No. 11, limiting agricultural uses of pyrethrum insecticides was issued by the War Food Administration early last month. This order will affect only the approximately 2,700,000 pounds of pyrethrum that have been allocated for agricultural use in 1943. It may be used only for the following purposes:

> (1) For control of caterpillars on cole crops, including cabbage; control of leaf hoppers and plant bugs on sugar beets and beet seed crops; control of corn earworm on sweet corn and seed corn; control of leaf hoppers on beans, potatoes and raisin grapes, and of leaf hoppers and worms on cranberries; (2) for control of all insects on vegetables grown in farm, home community or Victory gardens; (3) for the protection of cattle from flies in dairy barns, and control of other insects around creameries, cheese factories, and related establishments handling dairy products.

Farmers or growers can purchase pyrethrum insecticides from their regular sources of supply by signing certificates guaranteeing that the insecticide will be used for the approved purposes. Purchases not exceeding three pounds will be exempt from the need for certificates, thus accommodating the small buyer. In the order "pyrethrum insecticide" is defined as "any compound derived from pyrethrum flowers containing pyrethrins combined with other liquid or dry materials, either active or inert; provided that such compound is suitable for use as an insecticide for the purposes set forth in paragraph (b) (1) hereof." (The uses indicated are those enumerated above.)

Pacific Legislative Report

A report on the status of California legislation affecting insecticide manufacturers has recently been mailed to members by E. R. de Ong, secretary of the Pacific Insecticide Institute. A. B. 706, permitting the use of thallium in making ant pastes was vetoed by the Governor on the grounds of ambiguous wording. It has been revised and added as an amendment to A. B. 708 by the addition of the following paragraph to that bill:

> (d) "Registered manufacturers of ant poison may manufacture and sell, and registered dealers in ant poison may possess for sale and sell, ant poisons containing not more than 1 per cent of thallium, expressed as metallic, prepared, packaged, and sold in accordance with such rules and regulations as the director may deem necessary to protect the public health."

The bill has passed both houses and is now in the hands of the Governor. A. B. 1238, pertaining to the coloring of fluorides, has been amended as follows:

> 1069.5. "It is unlawful to deliver, distribute or sell any white economic poison in powdered form containing combined arsenic in concentrations greater than 0.40 per cent or combined fluorine in concentrations greater than 1 per cent unless distinctly colored or discolored in a manner to prevent resemblance to any white powdered foodstuffs."

There being no apparent opposition to any of the above bills, the chances are reported very good that they will be passed in time to be placed in the Governor's hands by the end of the current Legislative session.

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CEMENT FLOOR CLEANER

— Alkaline Type —

A safe and effective cleaner for GARAGES, DRIVEWAYS, BASEMENTS, BUS AND TRUCK TERMINALS, AIRPORTS, AND ALL UNPAINTED CEMENT SURFACES.

Dissolves oil and grease.
Disinfects as it cleans.

Packed in 20 lb. to 350 lb. containers
Information and prices on request.

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FEDERAL *All-Plastic* SOAP DISPENSER

Made of amber-transparent Tenite plastic . . . strong, long-wearing, light in weight • Streamline styling for modern eye appeal • Positive agitator prevents packing . . . insures smooth, even flow • Non-clog, thrust-in discharge valve easily taken apart for cleaning • Heavy brackets for direct mounting to wall or pipe • Wide-opening top for easy filling • Use your own nameplate • Lock top (optional) • Capacity: one quart • Overall size: 8" high x 3¼" x 3½" • Fully guaranteed.

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Prompt shipment on orders carrying priorities

Designed for: industrial plants, public buildings, office buildings, schools, etc.

(WE DO NOT SELL SOAP POWDER)

FEDERAL TOOL CORP., 400 NORTH LEAVITT STREET, CHICAGO, ILLINOIS

The Secretary's Report

(*From Page* 108)

circulate idle gossip. The information in our bulletins is all founded on fact, or direct statements by officials, just as far as it is possible to do so. Only matters pertinent to this specialized industry are bulletined. No attempt is made to cover the fields of finance, politics, economics, or general government policies. This Association has cooperated with the various agencies when requested by them to do so and protested when the interests of our members have been jeopardized.

It is fully realized that each individual company has its own private problems. These problems which the Association can help solve are only those which relate to the general industrial activities of all or the greater part of our members. Only too often, the Association will carry on a series of negotiations for some member, the results of which would be of value to the entire Association, and the answer sometimes is obtained by the member direct as a result of these negotiations, but the Association is not advised, and the membership as a whole is not informed of the knowledge obtained. The Association has always stressed the fact that this is a mutual benefit association and the good that each member gets out of it will, to a large extent, be directly proportionate to the amount he is willing to contribute,—not in the way of dues but in the way of information and in the way of service.

In the meantime, while we carry on our efforts with the war agencies, the same peace-time problems continue and must be dealt with. State legislatures did not take a vacation from law making because of the war. Forty-four of these were in session during 1943. Many of them enacted laws which affect every member of this Association. Many others had such laws on their calendars. In each instance, our Association opposed with a great deal of success, by protesting against those laws which were faulty or ill-advised.

During the past six months this Association has done much toward fostering an amendment to the Insecticide Act of 1910 to help protect the public health from the misuse of poisons meant for insecticides. This amendment is known as "the coloration clause." I believe it would not be unfair to say that this clause was long ago sponsored by our Association. Every case of accidental poisoning due to an insecticide, regardless of the type of insecticide, places a stigma on all insecticides, and it is to the best interest of our entire industry that such cases be reduced to a minimum, or at least that steps be taken to make the use of an insecticide for other purposes more than a mere accident. When this amendment has passed Congress, it can be used as a model for the various states, and because it has been passed by Congress, it will naturally be more readily accepted by state legislatures. This should help to avoid some of the extremely unsatisfactory clauses propounded by some of the less skilled lawmakers of the state legislatures.

States and Federal bodies continue to ask for bids on products using specifications which are far from fair. This Association and the special committees from whom you will hear during this meeting, continue to protest this type of specification. Work is progressing on the revised model form of state insecticide law so that our ideas and those of other trade associations may be coordinated to obtain the best results. In this way we hope to accomplish a coalition of ideas between the agricultural and the household insecticide groups in the matter of state legislation.

The efforts of our Association in its pioneer work of fostering the Peet-Grady Method of Test and the resulting Official Test Insecticide represent note-worthy accomplishments. The Official Test Insecticide has been sent to all accessible parts of the world. Our work on the standardization of disinfectants is outstanding. However, our committees realize that this work is far from complete and as new products and new techniques are developed, it is necessary that procedures shall be revised.

When the war will end is a subject of daily discussion from the Paris sewers to Palm Springs. Never before was there such need for industry to cooperate for the promotion of its general well being. Individual problems must be met and one of the ways to meet these problems in the crises caused by wars is the cooperation of all interested peoples.

—— • ——

Sanitary Supply Meeting

(*From Page* 129C)

Chemical Mfg. & Distributing Co., Easton, Pa., had a novel display of their "Target" line of soap powders and other products and featured their newly designed package for "Target" washing soda. C. E. Schadd, president, and George Rubert, sales manager.

Bobrick Manufacturing Corp., Los Angeles—This company showed its complete line of available soap dispensers of both the liquid and powder variety.—A. L. Bobrick.

Federal Varnish Co., Chicago—A complete display of this firm's line of sealers, finishes and waxes for every type of surface, as well as paste wood fillers and varnish removers.—J. H. Lawson.

Candy & Co., Chicago—Demonstrated items from its line of paste wax, spirit liquid waxes, powdered dance floor wax, concentrate cream furniture polish and paste cleaners sold under the "Bright Beauty" label.—R. M. Lockhart.

T. F. Washburn Co., Chicago—Featured a wide variety of its sanitary products including floor seals, finishes, waxes and other maintenance materials. —M. L. Magee.

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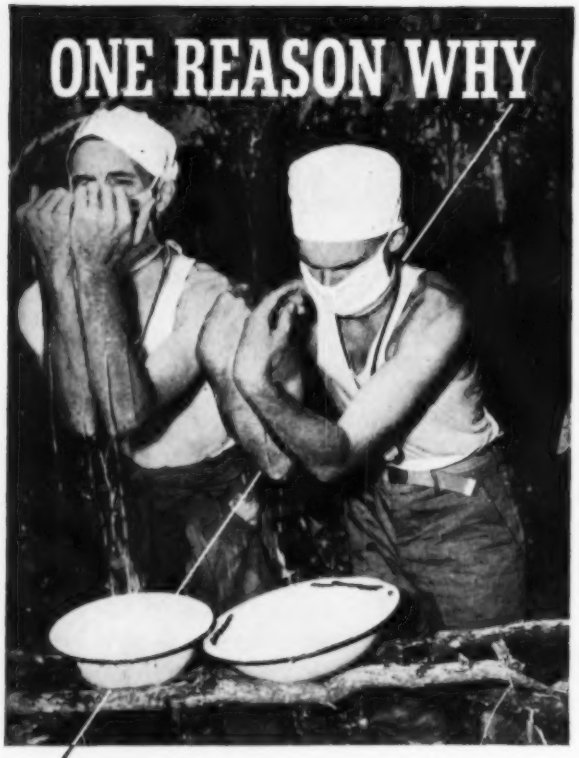
Raw Materials for Potash Soaps

(*From Page* 35)

assured him the matter would be held open.

Among the industry representatives present at the conference, were the following, in addition to Messrs. Edlund, Federline, and Frank Luther of the Association staff, and Wayne Dorland of *Soap and Sanitary Chemicals*: D. J. Bachrach of Clifton Chemical Co., J. F. Bush of Puritan Co., W. K. Cooley of Caled Products Co., Inc., W. B. Eddy of Rochester



deliveries of CRESOL are curtailed . . .

Cresol, widely used in antiseptics, disinfectants and soaps for civilian purposes, is critically needed for the manufacture of similar materials for our armed forces. Like many another coal-tar chemical, for which Barrett is a key source of supply, Cresol is needed in ever-increasing quantities for the war effort.

All Barrett's vast facilities and 89 years of manufacturing experience are being utilized to keep production of these vital chemicals at top limits. But so great are the requirements for war, we ask the indulgence of our customers if deliveries of Barrett chemicals for civilian use are curtailed or delayed

PHENOLS
CRESOLS
CRESYLIC ACIDS
CHLORINATED TAR ACIDS
BARRETAN*
PICKLING INHIBITORS
BENZOL
TOLUOL
XYLOL
SOLVENT NAPHTHA
HI-FLASH SOLVENT
NAPHTHALENE
PHTHALIC ANHYDRIDE
DIBUTYL PHTHALATE
PYRIDINES
TAR ACID OILS
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RUBBER COMPOUNDING MATERIALS
BARDOL*
HYDROGENATED COAL-TAR CHEMICALS
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ANHYDROUS AMMONIA
SULPHATE OF AMMONIA
ARCADIAN* THE AMERICAN NITRATE OF SODA

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Awarded to the men and women of the Barrett Frankford Chemicals plant for excellence in the production of war materials.

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ALLIED CHEMICAL & DYE CORPORATION
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ONE OF AMERICA'S GREAT BASIC BUSINESSES

CLIFTON SOAPS

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Potash Liquid Scrub Soft

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SOAP DISPENSERS
DISINFECTANTS
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DEODORIZING CAKES
WAXES
POLISHES

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Sanitary Supply Specialists for 25 Years

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Germicide Co., Melvin Fuld of Fuld Bros., Maury Gibson of R. M. Hollingshead Co., C. C. Gwinner of Crystal Soap & Chemical Co., Inc., H. Kranich of Kranich Soap Co., E. E. McDow of Antiseptol Co., Inc., S. J. Miller of The DuBois Soap Co., M. J. Murphy of The Phoenix Oil Co., L. J. Oppenheimer of the West Disinfecting Co., G. P. Peck of Peck's Products Co., Guy Peters of Oil-Kraft, Inc., W. F. Pollnow of Vestal Chemical Co., G. L. Simmonds of U. S. Sanitary Specialties Corp., C. B. Solly of Harley Soap Co., C. L. Weirich of The C. B. Dolge Co. and R. H. Young of Davies-Young Soap Co.

Questions and Answers

(*From Page 28*)

RESTRICTIONS APPLY TO USE AND DELIVERY (b) (1)

Q. Does glycerine order FDO-34 control use as well as delivery of glycerine?

A. Yes, the order controls not only delivery but also use of the delivered glycerine or use of glycerine from the consumer's inventory.

USE OF HIS OWN GLYCERINE BY PRODUCER (b) (1); (c) (1) and (c) (3)

Q. May a consumer who is also a producer of crude and/or refined glycerine use glycerine from his stock without specific authorization from FDA?

A. Yes, but he is restricted by the conditions in paragraph c of Order FDO-34 and in no event may the use of glycerine exceed 1,150 pounds per month.

BASIS OF ALLOCATION (b) (2)

Q. What rules govern in allocating the percentages of glycerine for each class of use?

A. The essentiality of the end use of the product and also the essentiality of glycerine in that product.

Q. Are allocations made on other than a month-to-month basis?

A. Yes, under special circumstances of extreme urgency for war materials.

USE OF FROZEN INVENTORIES (b) (3); (b) (4) and (c) (3)

Q. If a consumer has an inventory of glycerine that has been specifically frozen by a previous Government action, may he use from this inventory on the basis of the small order exemption clause, paragraph (c) or Order FDO-34?

A. No, but a request may be made in writing to the Food Distribution Administration to unfreeze the inventory to the extent of acting as a source of supply for the glycerine permitted for use under the small order exemption clause, paragraph (c).

USE OF INVENTORIES ACQUIRED PRIOR TO MARCH 30, 1942 (b) (3); (b) (4) and (c) (3)

Q. If a consumer has a stock of refined glycerine acquired prior to March 30, 1942, is he restricted in using it as to quantity or class of use?

A. Yes, if it is not an inventory specifically frozen as indicated in the preceding question, it may be used without specific authorization as a source of supply for the glycerine permitted for use under the small order exemption clause paragraph (c). In no event may the quantity of glycerine consumed on this basis exceed 1,150 lbs. per month.

Q. Can a consumer who has a stock of refined glycerine on hand that he acquired prior to March 30, 1942, take advantage of the automatic authorization and add to his stock, provided he does not accept delivery of more than 1,150 pounds monthly?

A. Yes, but he must limit himself in receiving and using glycerine to the quantity permitted by paragraph (c) of the Order.

REVERSION TO INVENTORY OF UNUSED STOCK (b) (3) and (b) (4)

Q. If a consumer does not use in a given month the glycerine allocated to him, what happens to the carry over?

A. It is the policy of the F.D.A. to permit a carry-over for not more than 30 days; it then reverts to inventory.

ALLOCATION TO INVENTORY (b) (4)

Q. What is the significance of the term "glycerine allocated for inventory" in paragraph (b) (4)?

A. This term means that a consumer of glycerine may apply for an allocation to inventory in order to provide a working stock. Such stock can only be used if specifically authorized.

UNRESTRICTED PURCHASE AND USE (except in Anti-Freeze) (c) (1) and (d)

Q. May anyone buy up to 50 pounds of glycerine in a month and without FDA authorization use it for any purpose he chooses except in anti-freeze?

A. Yes.

REQUIREMENTS NOT SUBJECT TO ALLOCATION (c) (3)

Q. May a consumer who accepts delivery in a month of more than 50, but not more than 1,150 pounds of glycerine, use it in any way he chooses, (except in anti-freeze) provided his total use in the month does not exceed 70 per cent of average monthly use for all purposes in 1940?

A. Yes, if obtained in accordance with paragraph (c) of Order FDO-34.

Q. Can a consumer of glycerine who uses less than 1,150 pounds monthly, in applying the 70 per cent limitation, include in the base period glycerine he consumed in anti-freeze?

A. No.

Q. Must hospitals, clinics, research and control laboratories get specific authorization for monthly deliveries of glycerine in excess of 1,150 pounds?

A. Yes.

AGGREGATE USE LIMITS SMALL ORDER EXEMPTION (c) (3)

Q. May all plants of a company or corporation individually avail themselves of the small order exemption clause paragraph (c) (3) (iv) and use 70 per cent of their 1940 consumption of glycerine up to 1,150 pounds per month at each plant?

A. No, the combined usage of the plants must be restricted to 70 per cent of the total use of glycerine by the company in 1940 but not exceeding 1,150 pounds per month in the aggregate.

DETERMINATION OF BASE PERIOD USE (c) (3) (iv)

Q. Should base period use and allocation deliveries be computed on the basis of pounds of glycerine or glycerol content?

A. Pounds of glycerine.

WHO MUST FILE PURCHASER'S CERTIFICATE (c) (4)

Q. Must a purchaser's certificate be filed by every purchaser of more than 50 pounds of glycerine monthly who is entitled to and obtains his glycerine without specific authorization?

A. This certificate must be filed by every purchaser who buys less than

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CRESOLS

U. S. P., Meta Para, Ortho, and special fractions—to all specifications. In drum or tank car quantities for shipment from Indianapolis and Newark.

Reilly COAL TAR PRODUCTS

. . . and other Coal Tar Products for the Soap and Disinfectant Industries

CRESYLIC ACIDS
—the entire range—in standard grades or to buyers' specifications.

NAPHTHALENE
Crude and refined prime white Naphthalene in flake, chipped, crystal and powdered form. Purity, 97.8% minimum. Freezing point, 79° C. minimum.

TAR ACID OILS
in all grades, from 10% to 75% tar acid content, or of specified phenol coefficiency, carefully blended.

XYLENOLS
Low boiling, high boiling and symmetrical. In tank cars and drums from Indianapolis and Newark.

OVER 4 Decades OF SERVICE ★

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PRIVATE FORMULA WORK

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Those products which you are not equipped to manufacture yourself . . . those odd items which do not fit into your plant . . . mosquito repellent, flea powder, salves, ointments, tube filling, powder filling, etc. . . . we buy materials, containers, pack, store, and ship your specialties . . . most modern methods and equipment . . . strictly confidential . . . and our charges are low . . . consult us without obligation.

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1,150 pounds and more than one gallon.

AUTHORIZATION NOT REQUIRED TO DELIVER SOAP LYE OR SWEETWATER (c) (5)

Q. Is it correct that no authorization is required to make delivery of soap lyes or sweetwaters to either a refiner or a producer of crude for production of crude glycerine?

A. Yes.

FILING PD-600 FORMS (e) (1)

Q. Must PD-600 (Customer's Application for Deliveries of Chemicals) be filed in every case by a consumer who requires delivery of more than 1,150 pounds of glycerine monthly?

A. Yes.

Q. If a glycerine consumer fails to file PD-600 by the 15th of the month preceding the month in which he requires delivery, what can he do to get needed deliveries?

A. He must file his application, explain in detail why he cannot wait until the next regular date of filing. These applications are screened very carefully and are allowed only for urgent war needs properly certified by the war agency involved.

Q. If a glycerine consumer requires delivery of more than 1,150 pounds in a month, but fails to file PD-600 on time, can he use up to 1,150 pounds without authorization, deplete any inventory he has and the following month make up the deficit?

A. This use of glycerine is controlled by provisions of paragraph (c) (3). It is the policy to deny authorization to make up a deficit during the following month.

WHO FILES FDO-34-1 (e) (2)

Q. Must Form FDO-34-1 (superseding Form PD-363-A) be filed monthly by:
(a) Refiners;
(b) Producers of crude;
(c) Recoverers of spent lye or sweetwaters?

A. (a) Yes;
(b) Yes;
(c) No.

ANSWERS TO QUESTIONS ON FDO-38, WHICH RESTRICTS USE, CONSUMPTION, PROCESSING, SALE AND DELIVERY OF PALM OIL

GLYCERINE RECOVERY STANDARDS

Q. What Standard of glycerine recovery governs use of palm oil for soapmaking in terms of crude, refined, or absolute glycerine?

A. FDO-33.

Q. Do the glycerine recovery provisions of FDO-38 apply to palm oil that has been salvaged for soapmaking after use for an exempted purpose such as manufacture of tin plate, steel sheets, etc.?

A. Yes.

PURCHASE OF INVENTORY QUOTAS

Q. Do other government agencies than Commodity Credit Corporation purchase inventory quotas?

A. No.

RELEASE OF STOCKS

Q. Is there any likelihood that frozen inventories of palm oil will be released to their owners?

A. There are no frozen stocks. All frozen stocks have been bought by CCC for the Government stockpile.

Q. How can palm oil be obtained by a soapmaker?

A. None being released for soap from Government stocks at this time. Any future releases will be covered by instructions at the time the release is made.

ANSWERS TO QUESTIONS ON FDO-43 AND FDO-46 WHICH RESTRICT USE, PROCESSING, SALE AND DELIVERY OF HIGH LAURIC ACID OILS

RELEASE OF FROZEN INVENTORIES TO SOAPMAKERS (b) of FDO-46; (f) of FDO-43

Q. Are frozen inventories of lauric acid oils likely to be released to soapmakers, and if so, when and under what conditions?

A. Oils frozen under M-60 (now FDO-43) are being released to those who will use the oil in accordance with all orders governing the use of fats and oils. Those frozen under M-60-a (now FDO-46) have been released to owners who are able to use them in accordance with Order FDO-43.

COMPOSITION OF 25% INVENTORY RESERVE (b) of FDO-46; (f) of FDO-43

Q. Does the 25 per cent inventory reserve held for the benefit of the government apply to 25 per cent of each oil individually, or to the total of high lauric acid oils?

A. Total—preferably coconut oil.

COCONUT OIL FOR SALT WATER SOAP (b) of FDO-46; (f) of FDO-43

Q. Can manufacturers of salt water soap get all the lauric acid oils that they might need to fill Navy contracts?

A. Not from Government stockpile.

PROTECTION OF PURCHASER AGAINST UNAUTHORIZED SALE OF INVENTORY RESERVE (g) of FDO-43

Q. How is a manufacturer who is purchasing high lauric acid oils to know whether his seller is complying with the inventory reserve provisions?

A. Get statement from seller.

INVENTORY RESERVE FROM IMPORTS (b) (1) of FDO-46

Q. Is it necessary that 25 per cent of all imports be set aside as an inventory reserve?

A. Yes, see FDO-46, paragraph (B) (1).

CURRENT IMPORTS NOT USABLE IN SOAPMAKING (b) (2) and (b) (3) of FDO-46

Q. Are current imports of lauric acid oils available for soap manufacturers? If so, what must they do to get them?

A. No.

STORAGE, INSURANCE AND OTHER ALLOWANCES ON SALES TO CCC (b) (4) of FDO-46

Q. Will Commodity Credit Corporation allow for storage, insurance and other charges in purchasing a manufacturer's inventory quota?

A. This matter should be taken up with Commodity Credit Corporation.

SALES OF INVENTORY RESERVE TO GOVERNMENT AGENCIES OTHER THAN CCC (b) (4) of FDO-46

Q. Will Government agencies, such as the Rubber Reserve Corporation, purchase the inventory quota?

A. No.

REPORTING INVENTORIES UNDER FDO-46 (d) (1) of FDO-46

Q. FDO-46 requires a report on inventory of high lauric oil set aside under Order M-60-a. If a manufacturer or owner has already filed such report previous to the issuance of FDO-46, is it necessary to file again?

A. At the present time and until further notice it will not be necessary to report unless the holder has additional quantities to report.

ANSWERS TO QUESTIONS ON FDO-32, WHICH RESTRICTS USE AND DISTRIBUTION OF CASTOR OIL

USE IN SOAP (b) (1)

Q. May castor oil be used in soap? What are the restrictions on its use?

A. There are no specific restrictions on the use of castor oil; however, as it is under complete allocation and the present policy is not to allocate for soap use, it is very unlikely that any castor oil will be available for this purpose.

Q. Must a soapmaker who has a stock of castor oil acquired before October 1, 1942, obtain specific authorization from FDA to use it in soap?

A. Yes.

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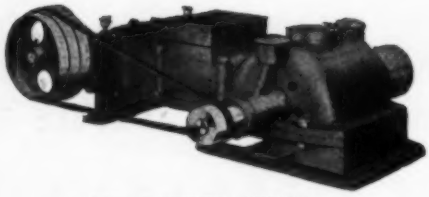

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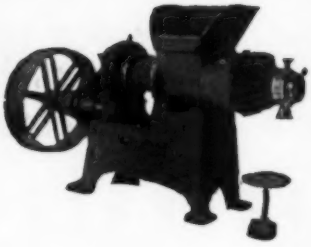

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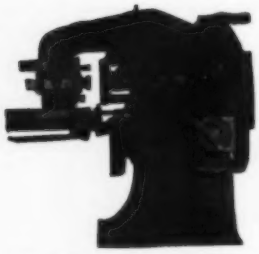

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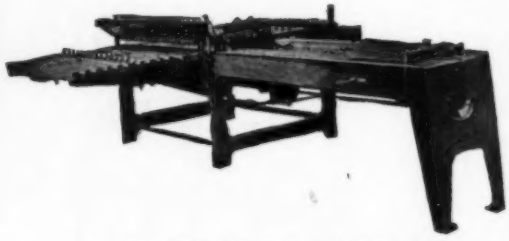

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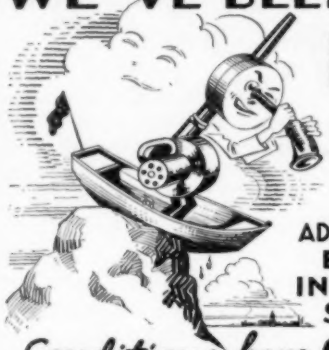

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Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

It will pay you to send for testing samples.

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Manufacturing Chemists, Importers, Exporters
799 Greenwich St. New York City
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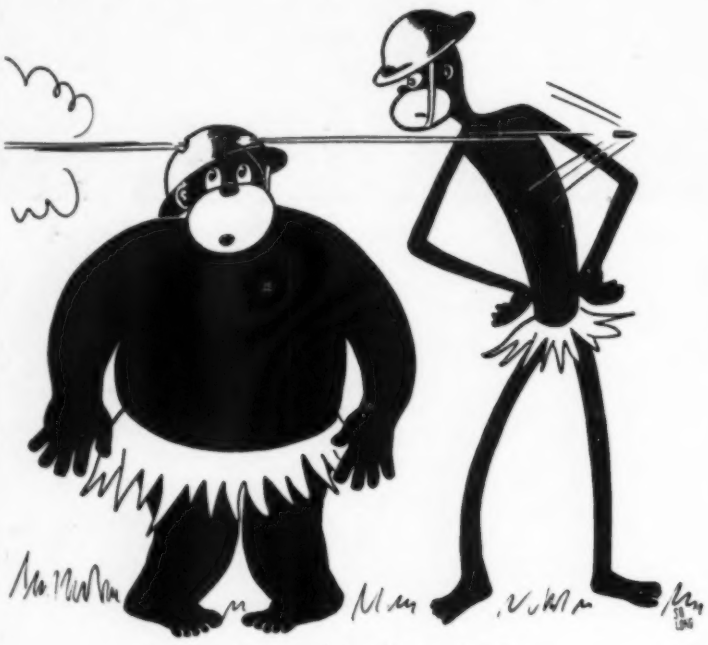

"Well, wise guy, is yo' convinced now dat de enemy am still doin' business?"

Just a reminder...

IF YOU don't keep on reminding people that you are still doing business, they are liable to forget both you and the products which you sell. Constant reminders, — such as regular advertising in recognized trade publications, — don't let people forget. This is the verdict of Old Man Experience.

If you want to make sure that people in the field of soap products, disinfectants, insecticides, sanitary and chemical specialties will remember that you are still doing business, we suggest a "constant reminder" such as regular advertising in

SOAP *and Sanitary Chemicals*
254 WEST 31st STREET NEW YORK

Member Audit Bureau of Circulations

Tale Ends

QUESTION of the month . . . from private brand and bulk soap buyers . . . where can we buy a car or two of soap? The chances of a soap manufacturer taking on a *new* customer for bulk or private brand material are right now about on a par with those of the well-known wax cat pursued by the asbestos dog through the streets of hell!

* * *

Disquieting . . . word from America's main rumor factory, Washington, D. C., has it that carnauba wax is in for further restrictions.

* * *

No more WPB "star chamber" advisory committee meetings? At least, the newspapers say that a WPB policy of deep secrecy and exclusion of observers will be changed. Instead of just a select few committee members knowing what goes on, maybe other firms in industry will also be permitted "in on the know."

* * *

In Canada, only flea powders, animal louse powders, and certain other similar insecticides which contain pyrethrum or rotenone may be termed "insecticides" and sold as such. Off hand, we should think that the present is about the most completely inauspicious occasion upon which to enforce any such regulation.

* * *

Small potash soapers who have threatened to tell their congressmen that WPB "ain't done right by our Nell," were recently promised that some linseed oil may be made available to them without glycerine removal. The next step in the solution of this simple problem is to buy linseed oil, the producers of which are 60 to 90 days behind in deliveries. Next problem, please!

* * *

Samples of German Army louse powder from Africa show their material to be superior to our own. The German powder, a dyestuffs by-product, says the Washington grapevine, will now be adopted by our Army. What a blow to our pride! But what is pride when the lice are biting?

UNCO SIMILE GERANIUM

IN the present shortage of natural Oil Geranium, we recommend UNCO SIMILE GERANIUM as an effective substitute in fine toilet soaps, shave creams and lotions, toilet waters . . . because

1. UNCO SIMILE GERANIUM imparts the character of natural geranium to the finished product . . .
2. UNCO SIMILE GERANIUM is completely stable and long-lasting in all products, including soaps . . .
3. UNCO SIMILE GERANIUM will not discolor white or other toilet soaps . . .
4. UNCO SIMILE GERANIUM is economically priced, including the cost range for even the lower priced toilet soaps . . .
5. UNCO SIMILE GERANIUM, like other Unco Similes, is not a "war baby," but a product with a long and successful background of practical use in toilet soaps, shave creams, shampoos etc. . . .

Write us for a sample.

UNGERER & COMPANY

161 Sixth Ave. New York

KEEP 'EM FLYING!

IMPORTANT!
As a valuable ingredient in Flower, Fruit and Vegetable Sprays
Velsicol AR-60
has been shown to be highly efficient
WRITE FOR COMPLETE INFORMATION

USE VELSICOL

AR-60

FOR CATTLE SPRAY

★ ***STRONGER REPELLENCY***

★ ***HIGHER KILL***

★ ***LOWER COST***

Yes—Velsicol AR-60 keeps 'em flying! And our customers have found that Velsicol AR-60 makes a superior spray due to its slower evaporation and stronger repellency factors. As evidence that sprays to which AR-60 have been added are generally more efficient and offer greater repellency than sprays containing other ingredients a leading manufacturing and distributing organization testifies as follows:

> ***"After the addition of Velsicol AR-60 to our Fly Spray formula, sales increased 300 per cent over the previous year. Customers returned and asked for the product by name stating that it was the best they had ever used."***

Companion product to AR-60 but quicker to evaporate, is Velsicol AR-50. According to reliable tests Velsicol AR-50 is an ideal ingredient in household sprays, for combating flies, bed bugs, mosquitoes and roaches. Velsicol AR-50 now enjoys widespread acceptance among large manufacturers who are using it in ever increasing quantities.

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